

COMPANY PROFILE

TurkPlast

TurkPlast

PARTNER FOR LIFE!

 www.alifindustry.com

 [/turkplastofficial](https://www.facebook.com/turkplastofficial)

 [/turkplast.official](https://www.instagram.com/turkplast.official)

TurkPlast.

Partner For Life!

TABLE OF CONTENTS

- 03** About us
- 04** Standards
- 05** Our Products
- 26** Certificates
- 62** Our Clients

— ABOUT **TURKPLAST**

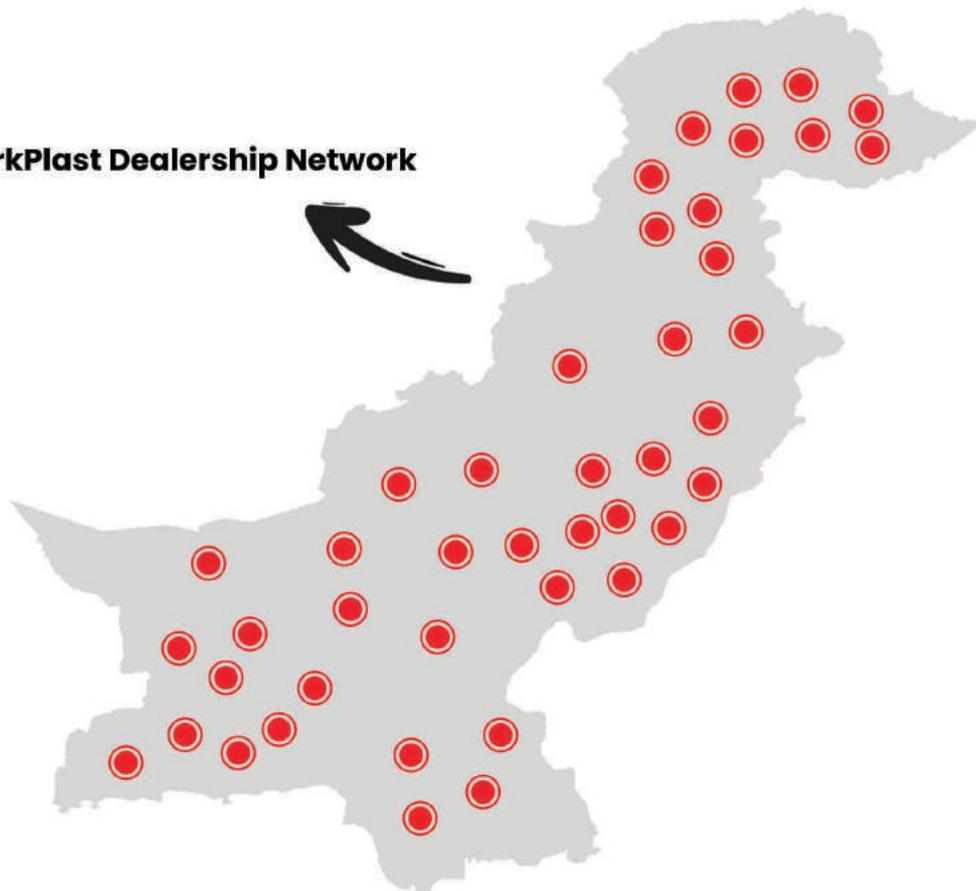
ALIF INDUSTRY is a project of Mahmood Sons Group of Companies. The group was established in 1958 as Traders and Importers dealing in water supply piping systems along with sanitary and bathroom accessories. Later on we extended our business in vast variety of local and all kinds of imported ceramic tiles, sanitary ware and bathroom utilities. Most recently the group has launched a new line of home display centers operating in Lahore for providing sales and after sale Services. The group is advancing and in process of opening more display centers in main cities of Pakistan.

ALIF INDUSTRY is the pioneer and one of the largest manufacturers in Pakistan by producing TURKPLAST PPR-C, U-PVC Pipes and Fittings. Electrical Conduits, Water Tanks and Garden Pipe with the world's most sophisticated technology. With our Hi-tech fully automatic machinery and the highest quality standard of our products makes us distinctive in the industry. With our Hi-tech fully automatic machinery and the highest quality standard of our products makes us distinctive in the industry.

Later the group achieved another landmark with a great pride by introducing a new product of TURKPLAST GFR-PPR-C (Glass Fiber Reinforced) pipe for the first time in Pakistan with same international quality standards on our high-tech facility located at 4-km. Raiwind Manga Road, Lahore.

We also have a largest sale and after services network established throughout the country. Our goal is to provide the best quality product at economical price to our customers so that they can have the best of their value.

TurkPlast Dealership Network



TurkPlast

STANDARDS

Conduit	BS - 6099 PS - 1905	BS - 3506 PS - 4514
Non Pressure	BS - 6099 PS - 1905	BS - 3506 PS - 4514
SDR	ASTM D - 2241	
Pressure PVC	BS - 3505 BS - 3501	
Medium	ISO 90001 - 140001	
SCH - 40	ASTM D - 1785	
SN Series	BS - EN - 1401-1	
MM Series	ISO 3633	
DUCT	BS - 4678	
U-PVC Fitting	ASTM D - 2466 BS - EN - 1329-1	
PPR-C Fitting	DIN - 16962	
HDPE	ISO - 4427 DIN - 8074 - 75	
Garden Pipe	BS - 3746	
PPR-C PIPE	DIN - 8077/78	
MDPE Gass Pipe	ASTM D - 2513 ISO - 4437	

— PPR-C

PIPES & FITTINGS

TurkPlast is using R-200p PPR-C Korean material. PPR-C Pipe fittings mean the new raw material used of Polypropylene Random Copolymer which is high resistance against heat and chemical effects. PPR-C Raw material is superior to others as to the resistance to temperature, pressure and chemical materials and the raw material does not have any material injurious to human health and gives color, taste and smell different from the normal. The Random Copolymer has a very high viscosity, resulting in extreme temperature resistance and high pressure and high impact resistance.

JOINTING PROCESS TIME & DIMENSIONS

PIPE DIAMETER MM	HEATING TIME SECONDS	PROCESSING TIME SECONDS	COOLING TIME SECONDS	PIPE DIMENSIONS MM	OUTER DIAMETER MM	WALL THICKNESS MM	INTERNAL DIAMETER MM
20	5	4	2	20	20	3.4	13.2
25	7	4	2	25	25	4.2	16.6
32	8	6	4	32	32	5.4	21.2
40	12	6	4	40	40	6.7	26.6
50	18	6	4	50	50	8.4	33.2
63	24	8	6	63	63	10.5	42.0
75	30	8	6	75	75	12.5	50.0
90	40	8	6	90	90	15.0	60.0
110	50	10	8	110	110	18.4	73.2

TEMPERATURE FOR JOINING PIPES

Continuous Temperature C270 - C300	Pipe Sizes MM 25, 32, 40, 63, 90, 110
Discontinuous Temperature C250 - C270	Pipe Sizes MM 25, 32, 40, 63, 90, 110

PRESSURE RATING SINGLE PIPE FOR 24HRS

PN 16	Min Range 150	Max Range PSi 250
PN 20	Min Range 200	Max Range PSi 325
PN 25	Min Range 250	Max Range PSi 450



Female Threaded Elbow



Female Threaded Tee



Plain Socket



Union



End/Plug



Male Threaded Tee



Female Threaded Socket



Male Threaded Socket



Pipe Bridge



Reducer



Elbow 45°



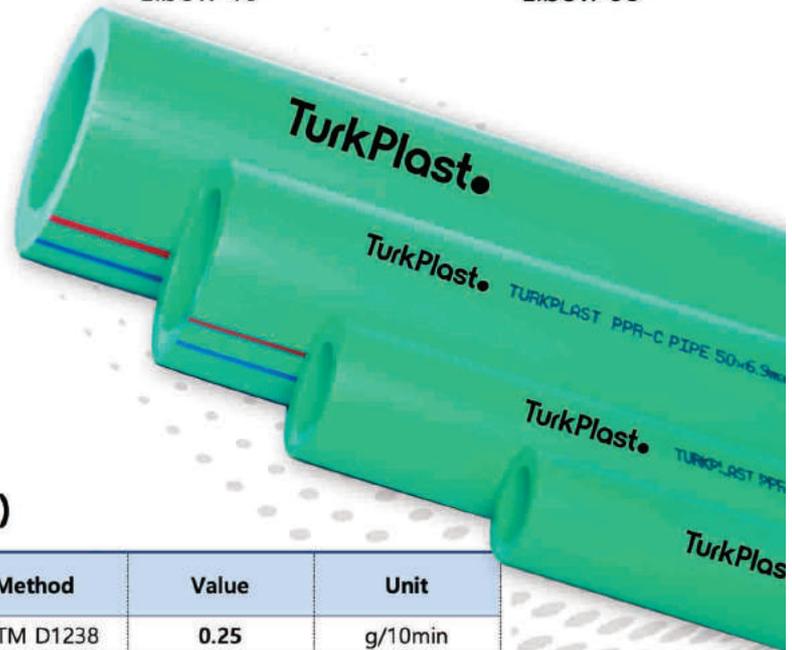
Elbow 90°



Reducer Tee



Clamps



TECHNICAL DATA SHEET (Typical Properties)

Resin Properties	Method	Value	Unit
Melt Index(230°C, 2.16kg)	ASTM D1238	0.25	g/10min
Density	ASTM D792	0.90	g/cm ³
Tensile Strength at Yield	ASTM D638	270	kg/cm ²
Flexural Modulus	ASTM D790	9,000	kg/cm ²
Notched Izod Impact Strength(23°C / -10°C)	ASTM D256	N.B / 5.0	kg-cm/cm
Rockwell Hardness	ASTM D785	75	R-Scale
Heat Deflection Temperature	ASTM D648	90	°C
Vicat Softening Point	ASTM D1525	130	°C
Mean Coefficient of Linear Thermal Expansion(0°C-80°C)	Dilatometer	1.5*10 ⁻⁴	K ⁻¹

The values listed above are typical values for reference purpose only and shall not be construed as specifications.

— U-PVC SOIL, WASTE & VENT PIPING SYSTEM:

TURKPLAST SWV (soil waste vent) is a complete piping system made of Un-plasticized polyvinyl chloride (U-PVC) compound. Turk Plast SWV piping system manufactured in conformity with ISO 3633 & En 1329.

Where fittings are solvent cement joint conformity with ISO 3633 & En 1329. TurkPlast SWV's innovative system has emerged as the most valuable piping system, especially in comparison to traditional and bulky cast iron piping systems. Its unsurpassed quality and bulky cast iron piping system. Its unsurpassed quality and ultimate customer experience have made it prevalent among architects, consultants, engineers, installers and plumbing consultants.



ELBOW-90



ELBOW-45



SOCKET



PLUG ELBOW



TEE



Y-TEE-45



PLUG TEE



MULTI FLOOR TRAP



P-TRAP



END CAP



COVEL



CLEAN OUT



OFF SET



UPVC PRESSURE RATING

CLASS B	6 BAR
CLASS C	9 BAR
CLASS D	12 BAR
CLASS E	15 BAR

PVC AU-60

AU-60 is a medium-low molecular weight suspension resin. It offers high fusion rate in processing and has a narrow particle size range. It is very low in fish-eyes, gel count and foreign matter and has excellent heat stability and clarity. It is recommended for transparent and opaque rigid PVC applications.

Property	Value	Test Method*
K-Value	60 ± 1	DIN 53726
Appearance	White	-----
Bulk Density g/cc	0.52 - 0.58	JIS K6721
Volatile Matter	Max. 0.4%	JIS K6721
Particle Size		EAPCL Method
Passes 40 mesh	100%	
Passes 270 mesh max.	3%	

* DIN : German Standards

JIS: Japanese Industrial Standards

Applications

Rigid calendared PVC sheet, PVC bottles, Injection moulded PVC fittings for pressure application, rigid PVC extruded film and sheet, PVC welding rods.

Doc No:		PT. SULFINDO ADIUSAHA	Prepared by		
SPEC.SAU.MKS-303			 General Manager		
Revision:			Approved by		
0		STANDARD OPERATION MANUAL	 CPO		
	SAU PRODUCT SPECIFICATION				
	POLY VINYL CHLORIDE K - 65				
Page 1 of 1	Product Code : SAU-PVC-K65-01				
No	Parameters	Unit	Method of Analysis	Specification	
				Min	Max
1	Polymerization Degree	-	Specific Viscosity	980	1080
2	Bulk Density	g/mL	Bulk Specific Gravity	0,500	0,600
3	42 Mesh Pass	% wt	Screen Analysis	99,5	-
4	Volatile Matter	% wt	Gravimetry		0,3

— PVC AU-67R

AU-67R is a medium molecular weight suspension resin. It has a narrow range of particle size distribution, high bulk density, and excellent dry-flow properties. This results into a high and uniform production rate in the extrusion process. This grade has been specially designed, and is recommended for rigid PVC applications.

TYPICAL PROPERTIES

Property	Value	Test Method*
K-Value	66 ± 1	DIN 53726
Appearance	White	-----
Bulk Density g/cc	0.54 - 0.58	JIS K6721
Volatile Matter	Max. 0.4%	JIS K6721
Particle Size		EAPCL Method
Passes 40 mesh	100%	
Passes 270 mesh max.	3%	

* DIN : German Standards

JIS: Japanese Industrial Standards

Applications

Rigid PVC pipes, conduits and ducting, PVC profiles such as doors, windows and other sections, PVC corrugated pipes, PVC shrinkable film and also twist wrap candy film, rigid PVC compounds for extrusion.

— PVC AU-72

Au-72 is a high molecular weight suspension resin. It has a high plasticiser take up and absorption rate. On mixing, it results in free-flowing powder with dry feel. It is free from gels and foreign matters. It has superior dielectric properties and physical strength, which makes it an ideal choice for electric insulated PVC cables.

TYPICAL PROPERTIES

Property	Value	Test Method*
K-Value	72 ± 1	DIN 53726
Appearance	White	-----
Bulk Density g/cc	0.46 - 0.50	JIS K6721
Volatile Matter	Max. 0.4%	JIS K6721
Particle Size		EAPCL Method
Passes 40 mesh	100%	
Passes 270 mesh max.	3%	

* DIN : German Standards

JIS: Japanese Industrial Standards

Applications

PVC cables, flexible calendared PVC film, sheet and leather, flexible PVC extrusion and injection moulded products.

Electric Conduits

Pipes & Fittings:

TURKPLAST electric conduit pipes fulfill the industrial requirements of BS-6099 and PS-1905. The special formulation gives desired collapsible strength. It is flame resistant and can be bent to certain angles and is easy to install. Best for concealed and external wiring in electric cables.



Cable Routing System:

TURKPLAST PVC Cable Ducts provide a versatile solution for organizing cables and protecting wires. Durable and convenient to use indoors and outdoors. Wires can be easily repaired and changed because of its flexible U-shaped channel body with a Snap-on cover design.

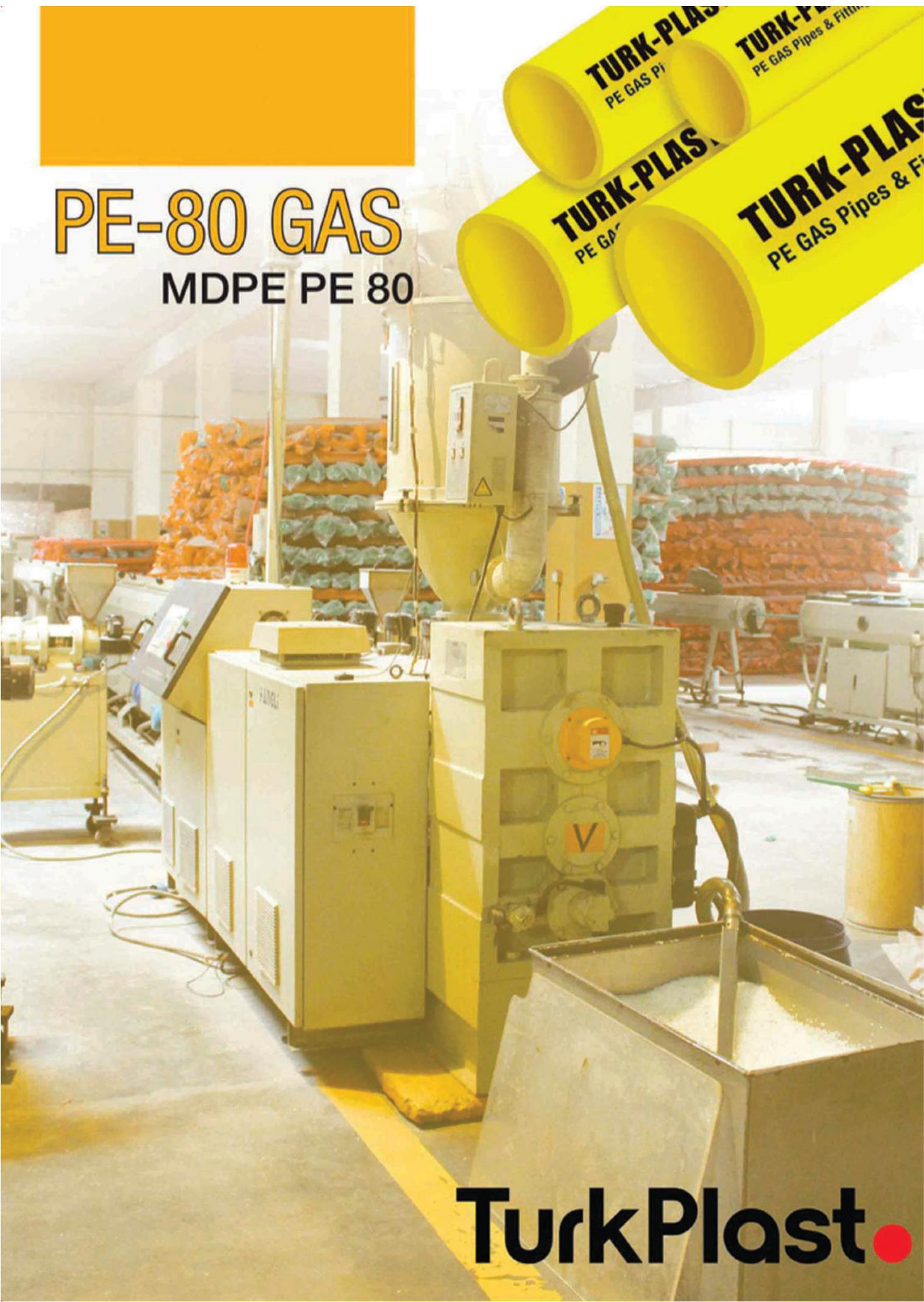
A safe Solution
FOR EVERY HOME!

30% fire resistant which means non-flammable material.



PE-80 GAS

MDPE PE 80



TurkPlast ●

TurkPlast is the leading thermoplastic pipes manufacturer in Pakistan. Gas lines require pipe systems that have superior quality, deliver high performance and are maintenance free.

As an ISO 9001 certified and PSQCA (Pakistan Standards Quality Control Authority) accredited company, **TurkPlast** is actively involved in drafting and adapting Standards and Codes of Practice for Thermoplastic pipes and fittings, including those related to PE pipes and fittings for the conveyance of gas.

TurkPlast pipes for gas are manufactured from engineered polyethylene raw material that provides a balance of properties for strength, toughness, flexibility, wear resistance, chemical resistance and durability. **TurkPlast** pipes have excellent hydraulics for low resistance to fluid flows even at high flow velocities and resilience for outstanding tolerance to pressure surge. **TurkPlast** pipes are manufactured from standard pipe grade, a synthetic polymer produced from the distillation and cracking of crude oil.

Raw Material

The Polyethylene compound used for production processes is in the form of small uniform sized granules. It is imported by **TurkPlast** from high quality international suppliers. **TurkPlast** pipes and fittings are manufactured from Polyethylene (PE 80 or PE100) compound, which is a synthetic Polymer normally produced from the distillation and cracking of crude oil. Polyethylene (PE 80 or PE100) is highly resistant to environmental stress cracking and meets the ISO classification for (PE 80 or PE100) pipe materials. **TurkPlast** also has the capability to produce high performance PE 100 pipes for gas.

Colour:

PE 80 - Bright Yellow

General Advantages of TurkPlast Pipe System

- Good resistance to corrosion.
- Relatively light weight.
- Flexible & low frictional resistance.
- Comprehensive range of fittings available.
- Suitable for narrow trenching resulting in cost saving.
- Good absorption of impact loads vibration & ground movement.
- Easily identifiable due to their distinctive yellow color.
- Does not require any internal/external coating against corrosion.
- Can withstand substantial deflection during installation.
- Deflection in the system is uniform due to homogeneous pipe/fitting materials.
- Material classification is simple to understand for fusion/welding compatibility like PE 80 and PE 100.
- Available in coiled lengths up to 100 m.

Technical Advantages

Available Lengths

TurkPlast PE gas pipes are available in the following diameters: 20, 25, 32, 40, 50 and 63 mm in coil of length up to 100 meters. 75 and 90 mm diameter in coils up to 50 meters' length. 110, 125, 140, 160, 180, 200, 225 and 250 mm diameter in straight length of 6m/12m.

A complete range of **TurkPlast** pipes for gas is available in imperial sizes of ¾", 1", 1¼", 1½", 2", 2½", 3", 3½", 4" and 6".

Trenching

- Open cut narrow trenching

Joint

- Butt Fusion, Socket Fusion, Electro Fusion and Mechanical Joints.

Connections For Off-Takes

- Tapping saddles (Electro Fusion) with cutters available.

Environment Resistance

- Resistant to aggressive and corrosive ground condition.

Trench Back Filling

Selected as - dug material free from large stones and sharp objects can be used.

Jointing Methods

Two most commonly used jointing methods are:

1. Butt Fusion
2. Electro Fusion

1. Butt Fusion

A method of joining **TurkPlast** pipes where two pipe ends are heated to a molten state, and brought together to form a homogeneous bond. For long lasting and reliable fusion, only pipes and fittings of same size, MRS and SDR* rating should be used.

$$\text{Standard Dimension Ratio} = \frac{\text{Average Outside Diameter}}{\text{Minimum Wall Thickness}}$$



Preparation for Butt Fusion Joints

Do's

- Check that diameter, SDR, Polymer (MRS) are same.

- Check all equipment is clean and in good working condition.
- Ensure that the pipe is undamaged.
- Check fuel for generator (where applicable).
- Check fusion condition for pipe to be welded.
- Use pipe support rollers.
- Carry out dummy fusion to clean heating plate (where needed).

Don'ts

- Weld in wet or windy condition without protection of welding equipments.
- Remove pipe from clamp before cooling period is complete.
- Use dirty or contaminated pipe.
- Use Butt Fusion equipment unless fully trained to do so.

General Butt Fusion Installation Procedure

1. Ensure that the pipes to be joined are of same diameter, SDR and polymer.
2. If necessary, pipe and fittings should be washed with clean water and wiped with paper before clamping in machine.
3. The pipe ends must be reasonably square cut. If not, re-cut pipe ends with pipe cleaned with moist cloth and dried.
4. At the start of each working day (welding session) the cold heater plate should be cleaned with moist cloth and dried.
5. Check to ensure that the butt fusion equipment is clean and in working order, the correct size clamp inserts are available and heater plate is upto working temperature.
6. To avoid any risk of contamination at site, place butt fusion machine on a clean base board or tarpaulin.
7. If the weather is windy or wet, jointing should be carried out inside a protective shelter.
8. To prevent cooling of heater plates from air drafts, the pipe ends should be plugged or covered before welding commences.
9. Before jointing commences the fusion pressure and fusion time should be established for the pipes being jointed. The information should be attached to the fusion machine, or contact our Technical Department to obtain fusion data.
10. Check that the generator has sufficient fuel to last for the joining cycle.

2. Electro Fusion Method

The jointing technique is based on sleeve coupler with an integrated coil. The pipe ends that are to be joined are placed in the coupler and electrical current is passed through the coil. As resistance of wire generates temperature, the material of coupler and pipe melts to fuse with each other.

Preparation for Electro Fusion Joints

Do's

- Cut pipe ends square and deburr.
- Scrape pipe ends.
- Remove the fitting from the plastic bag till the time it is actually required.
- Use correct restraining clamps.
- Set correct fusion and cooling times.
- Check fuel for generator (where applicable).

Don'ts

- Use sandpaper, emery cloth etc. for cleaning pipe ends.
- Touch scraped pipe ends or inside of fittings.
- Make joints in wet and rephrase unless adequate protection is provided.
- Stop the fusion cycle mid-way.
- Touch the fusion indicator until the fitting has cooled.
- Move joints before fully cooled.

General Electro Fusion Installation Procedure

Clean

Use a clean, dry, lint free cloth or paper towel and wipe loose dirt off the pipe ends.

Scrape

Using an approved mechanical or handheld scraper, scrape each pipe in excess of half a socket length. Ensure the entire surface layer is removed. Do not touch pipe ends after scraping.

Mark

Using the molded depth of entry mark on the fitting as a guide. Clearly mark the depth of the entry on the pipes.

Align

Remove the fitting from the bag and assemble on the pipes upto the central stop. At this point an approved disposable wipe may be used to clean the pipe ends and bore of the fitting. Otherwise do not touch the inside of the fitting.

Clamp

Position the pipes and fittings into the clamp. Check that the pipes are in line. Fully tighten both restraining clamps.

Fuse

Connect the fusion box electrical wires to the fitting terminals. Press start and ensure the joint complete it's full fusion cycle (indicated by movement of the fusion indicator.)

Cool

Leave the joint in the clamp for cooling till the required time as marked on each fitting. Check that the fusion indicator has moved.



DIMENSIONS

PIPE DIMENSIONS (mm)	OUTER DIAMETER (mm)	WALL THICKNESS (mm)						
		SDR 9	SDR 11	SDR 13.6	SDR 17	SDR 17.6	SDR 21	SDR 26
20	20	3	2.3					
25	25	3	2.3	2				
32	32	3.6	3	2.4	2	2		
40	40	4.5	3.7	3	2.4	2.3	2	
50	50	5.6	4.6	3.7	3	2.9	2.4	2
63	63	7.1	5.8	4.7	3.8	3.6	3	2.5
75	75	8.4	6.8	5.6	4.5	4.3	3.6	2.9
90	90	10.1	8.2	6.7	5.4	5.2	4.3	3.5
110	110	12.3	10	8.1	6.6	6.3	5.3	4.2



TurkPlast

Partner For Life!

— PE-80 Gas (MDPE PE 80)

Applications

- Corrugated pipe
- Non pressure pipe extrusion

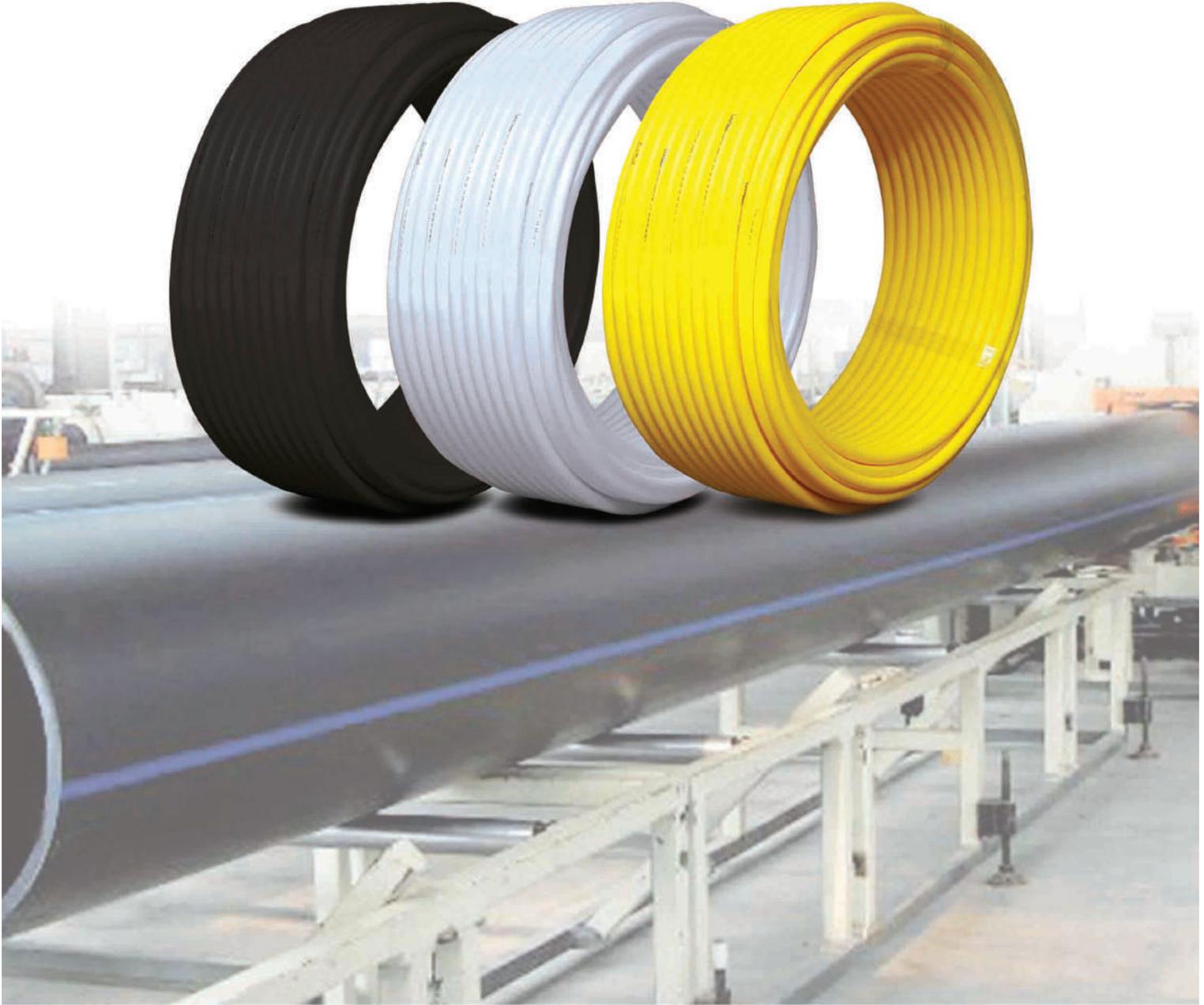
Characteristics

The Exelene resin HDPE PE80 meets the requirements of section 177.1520, paragraph C, from chapter 21 denominated “Olefin Polymers” from the Code of Federal Regulations of the FDA, to be utilized with direct food contact.

Properties		ASTM Testing	Units	Values
Resin Properties				
Melt Flow Rate	Condition E	D 1238 (190°C; 2,16 kgf)	g/10 min	0.04
	Condition F	D 1238 (190°C; 21,6 kgf)	g/10 min	8.50
Density		D 792 (23°C)	g/cm ³	0.949
Nominal Physical Properties				
Tensile Strength @ yield		D 638 (50 mm/min, IV)	psi	3,600
Elongation @ break		D 638 (50 mm/min, IV)	%	600
Tensile Impact Strength		D 1822 (S)	ft x lb / in ²	115
Brittleness Temperature		D 746A (F50; 25 lbfXin)	°C	180
ESCR		Condition A ⁽¹⁾ D 1693A (F50; 3,1 mm)	h	500
		NCTL 15% F2136	h	400

High-Density Pipe Rolls

HD Pipes are widely applicable in water supply, cable ducting/conduit, chemical and various other industries. Our range of high-density pipes is in huge demand across Pakistan. Our HDPE Pipes can be customized as per the specifications of our clients.



TurkPlast PE-100

Pressure Pipes & Fittings

Polyethylene pipes & fittings have a proven high reliability record across a wide range of industries and applications. PE also provides a long maintenance free lifetime with low whole life costs, compared to many other conventional materials.

A commitment to using only the highest standard of raw materials and the latest manufacturing technology has established **TurkPlast** Pipes with a reputation as a quality supplier of thermoplastic pipe systems and solutions for uPVC, PPRC and now Polyethylene (PE-100).

Piping made from polyethylene is a cost effective solution for a broad range of piping problems in municipal, industrial, marine, mining, landfill, duct and agricultural applications. It has been tested and

wall, for which the pipe can be subjected during at least 50 years when transporting clean water at 20°C.

HDPE pipe grade material is classified as PE 80 and PE 100. The classification number for a thermoplastic material is 10 times the minimum strength of the material (MRS) as shown in the following table:

Designation of Material	Classification of Numbers	MRS at 50 Years & 20°C (MPa)	Maximum allowable Hydrostatic Design Stress (M Pa)
PE 80	80	8	6.3
PE 100	100	10	8

Note: TURKPLAST Manufactures PE-100 pipe system only.



proven effective for above ground, surface, buried and sub-surface marine applications. **TurkPlast** PE 100 can carry potable water, waste water, slurries, chemicals and hazardous wastes.

Pipe Material Classification

Materials used for pressure pipes are classified according to international standards such as the DIN, ISO, EN and ASTM. Classification is based on the minimum required strength (MRS) given as the minimum tensile circumferential stress in the pipe

For example, PE 100 material has MRS value of up to 10 MPa. Such a rating represents the material science capability within the PE sector by offering most superior material available in the market today.

Dimensions and Standards:

TurkPlast PE-100 pipes for potable water application are manufactured according to International standard(s), DIN 8074, PS 3580 & ISO 4427. The nominal pressure (PN) corresponds to the maximum allowable working pressure in bar for pipe at 20°C.

DN	SDR 9 (PN-20)	SDR 11 (PN-16)	SDR 13.6 (PN-12.5)	SDR 17 (PN-10)	SDR 21 (PN-8)
O.D. (MM)	e (mm)	e (mm)	e (mm)	e (mm)	e (mm)
20	2.3	1.9	1.8	-	-
25	2.8	2.3	2.0	1.8	-
32	3.6	2.9	2.4	1.9	-
40	4.5	3.7	3.0	2.4	1.9
50	5.6	4.6	3.7	3.0	2.4
63	7.1	5.8	4.7	3.8	3.0
75	8.4	6.8	5.6	4.5	3.6
90	10.1	8.2	6.7	5.4	4.3
110	12.3	10.0	8.1	6.6	5.3
125	14.0	11.4	9.2	7.4	6.0
140	15.7	12.7	10.3	8.3	6.7
160	17.9	14.6	11.8	9.5	7.7
180	20.1	16.4	13.3	10.7	8.6
200	22.4	18.2	14.7	11.9	9.6
225	25.2	20.5	16.6	13.4	10.8
250	27.9	22.7	18.4	14.8	11.9
630		57.2	102.3	37.4	69.4

All informations contained in this literature is given in good faith. The user should, however, check that the product is suitable in the application for which it shall be used. Please ensure compliance with all health and safety requirements.

QUALITY ASSURANCE

TurkPlast believes in customer's satisfaction & delightness. All products are supplied to the customers after adhering stringent quality measures. In order to supply best quality products to the clients, a separate quality control department has been established to ensure the quality and compliance and international standards from raw material to delivery of the products. Quality control staff consists of energetic and self motivated Professional engineers. TurkPlast has in house laboratory facility, fully equipped with latest and state of the art testing equipments, capable to test PE products & PE materials in accordance with all applicable international standards.

Procedures and Techniques for Pipe Laying:

A major advantage of PE-100 is that pipe lengths can be butt fused or electro fusion jointed to form a continuous string of pipe and normally no thrust blocks are required. This together with the materials inherent flexibility makes polyethylene ideally suited to a full range of new and innovative installation techniques.

General points on trench excavation are as follows:

(a) Trenching and Bed Preparation:

Installation of PE systems requires minimal trench width therefore considerable savings can be made in terms of both reduced labour costs and less waste spoil to be removed from the site. Additionally,

reinstatement costs are cut and smaller quantities of back fill are needed. The opening dimension of the trench is determined by the pipe diameter, method of jointing and site conditions. Normal minimum depth of cover for mains should be 900 mm from ground level to the crown of the pipe. The width of the trench should be as narrow as possible but typically not less than the outside diameter of the pipe plus 250mm to allow for adequate compaction of side fill unless specialized narrow trenching techniques are used.

(b) Trench construction and dimensions:

In some instances, it may be acceptable to lay PE pipe directly on the bottom of the trench but only where the soil is uniform, relatively soft and fine grained and free from any hard object which may cause point loading on the pipe. The trench bottom should have even finish, providing consistent support for pipes along their whole length. After installation, the ground can be back filled and consolidated.

(c) Backfilling:

Unless special procedures apply, suitable excavated material may be returned to the trench and compacted in layers of an appropriate thickness as specified in the specification but not exceeding a layer height of 150mm. Heavy compaction equipment should not be used until the fill over the crown of the pipe is more than 300mm. It is very important that the back filling and compaction are done in the right way.

Reduced installation costs due to following:

- Fewer fittings are needed due to pipe flexibility
- Light weight and longer lengths allow for significant cost savings in labour and equipment
- Eliminates the need of thrust blocks

Pipe Jointing:

Polyethylene piping systems may not be joined together using solvent cement or adhesives. The welding process requires a heat source to melt the surfaces of the items to be joined together. Once melted, the items are brought together under pressure and the subsequent cooling bonds together with a joint equal to or exceeding the strength of pipe itself.

Installed correctly, a thermoplastic piping system will give many years of trouble-free life. However, a badly installed system will fail to perform satisfactorily, and in the worst case, may leak.

Experience has shown that it is the installation of systems that most frequently cause problems, with poor jointing being the most likely reason. This section provides a detailed account of the various methods that may be used to fabricate and install PE-100 plastic piping systems. These following instructions should be followed carefully at all times.

(a) Butt-fusion welding process

Butt welding (or butt fusion) is the most common jointing method for PE pipes. It is made by inserting a heater-plate between the ends of two pipes, which are then brought together under pressure - this softens the ends of the pipe. The heater-plate is then removed and the pipes are brought together again and allowed to cool under pressure, this results in a high-tensile, leak tight homogeneous joint



(b) Electro fusion welding Process

Electro fusion jointing is used for both the jointing of pipes and pipes to fittings. The electro fusion fitting is supplied with a "heating coil" pre-installed during the manufacturing process.

By applying an electrical charge to the fitting, the wires of the coil heat up to a pre-determined temperature, which causes the PE to melt and form a high-tensile, leak tight joint. Modern electro fusion boxes are designed to set time and power requirements automatically for each different fitting.



(c) Compression Coupling Joint

Compression fittings are normally available only in relatively small diameters. The pipes are connected to each other by means of coupling adaptor. Having been cut vertical to its axis, the pipe is inserted into the coupling up to the raised point.

When both pipes are in position, the bolts are tightened by hand and the connection thus achieved. If the pipe diameter is 40mm or higher, the bolts should be tightened using a special wrench rather than by hand. Thus joining method is not recommended for pipes with diameters exceeding 110 mm.



(d) Flange Connection Joint

A flange joint connection is used for combining PE pipes with equipment such as steel plates, valves, pumps and condensers. It is also used in where pipe line needs to be dismantled at a later stage or for connecting PE pipes to different pipe materials. Flange joints are made by welding a "stub-end" to a piece of pipe and by using "loose-flanges", nuts and bolts. The finished joint offers a high tensile strength and ease of assembly.



TurkPlast PE Cable Duct System:

The information and Communication Technology (ICT) sector is booming and has long converted from traditional material to U-PVC and now to PE for majority of new installations for continuous data transmission. The quality of duct system, in which these vital links are encased, must be reliable and durable.

The cable ducts and fittings used in the cable routes are employed to protect both power and telecommunication cable (glass fiber or copper cable) against mechanical damage, chemical corrosion and rodent damage.

Taking this reputation into future, we are delighted to offer our product rang covering TurkPlast PE Duct in dimensions (20, 25, 32, 50 & 90mm) available in coils along with complete range of PE compression fittings.



PRODUCT RANGE

TurkPlast has state of the art production lines and can deliver extensive range of pipes, as well as outstanding range of fittings and accessories. The product range includes:

- PE-100 solid wall pipe with an outside diameter from 20mm to 630mm.
- Below 90mm pipe are available in Coils
- Above 90mm are available in standard length of outer

FITTINGS AND ACCESSORIES

Fittings are available as injection-moulded, electro fusion, segment-welded or compression mechanical coupling parts and include:

- Tees/Reducer tees/Wyes
- Bends/Elbows
- Saddles/tapping tees/valves
- Reducers
- Cross

FEATURES OF TURKPLAST PE PIPING SYSTEMS

- Flexible Pipes, Coiling is easy
- Resistant to UV, Biological attack, Corrosion, Abrasion, Chemicals and weatherability
- Have various jointing techniques.
- Have low coefficient of friction i.e. excellent
- Light weight & Low installation cost
- Low maintenance and operational cost
- Durable & impact resistant
- Non biodegradable

- Long life (More than 50 years) & Suitable for narrow trenching
- Can withstand substantial deflection during installation
- Impervious to contaminated sub-soil
- Resistant to saline water (To transport salty/sea/saline water)
- Material classification is simple to understand for fusion/welding compatibility like PE-80 and PE-100
- Ductile & toughness & have a comparatively high coefficient of linear heat expansion (thermal expansion)

APPLICATIONS

- Sludge Piping
- Fly Ash disposal
- Floor drains
- Dredging
- Chilled Water Piping System
- Acid/Caustic Lines
- System of food processing and surface treatment
- Cooling air and ventilation system
- Process piping and sewage treatment
- Storage tank and utility piping
- Fireman piping and temporary pipelines
- Paper and pulp manufacturing
- Power plants
- Hazardous Waste
- Coal Slurry and slurry lines in beverage industries
- Out Fall Pipelines
- De-Watering Pipes
- Organic chemical and inorganic chemicals



- Cement Plants
- Sea Water Effluents
- Drain Lines/Industrial Effluents & Industrial Water

Underground Installations

PE-100 pipes are tough, flexible, light weight and offer many cost saving advantages in both above ground and below ground installations. Whilst they are robust and resistant to site damage normal care and sensible handling practices are necessary to ensure trouble free operations. Installation is as much a part of the costing equation as ease of maintenance and the cost of the pipe system itself.



Technical data for PE100 pipe material				
	Property	Standard	Unit	PE100 black
	Specific density at 23°C	ISO 1183	g/cm ³	0,95
	Melt flow index	ISO 1133	g/10min	0,30
	MFR 190/5			<0,10
	MFR 190/2,16 MFR 230/5 MFI range	ISO1872/1873		T003
Mechanical Properties	Tensile stress at yield	ISO 527	MPa	25
	Elongation at yield	ISO 527	%	9
	Elongation at break	ISO 527	%	>600
	Impact strength unnotched at +23°C	ISO 179	kJ/m ²	no break no break
	Impact strength unnotched at -30°C			
	Impact strength notched at +23°C	ISO 179	kJ/m ²	16
	Impact strength notched at 0°C			
	Impact strength notched at -30°C			
	Ball indentation hardness acc. Rockwell	ISO 2039-1	MPa	46
	Flexural strength (3,5% flexural stress)	ISO 178	MPa	24
	Modulus of elasticity	ISO 527	MPa	1100
	Resistance to internal pressure [20°C, 12.4MPa, 100h]	ISO 4427		No failure or defect
	Resistance to internal pressure [80°C, 5.5MPa, 165h]	ISO 4427		No failure or defect
Resistance to internal pressure [80°C, 5.0Pa, 1000h]	ISO 4427		No failure or defect	
Thermal Properties	Thermal stability OIT 200°C	EN 728	Min.	> 20min
	Vicat-Softening point VST/B/50	ISO 306	°C	77
	Heat deflection temperature HDT/B	ISO 75	°C	75
	Linear coefficient of thermal expansion	DIN 53752	K ⁻¹ x 10 ⁻⁴	1,8
	Thermal conductivity at 20 °C	DIN 52612	W/(mxK)	0,4
Flammability	UL94 DIN 4102	-	94-HB B2	
Electrical Properties	Specific volume resistance	VDE 0303	OHM cm	>10 ¹⁶
	Specific surface resistance	VDE 0303	OHM	>10 ¹³
	relative dielectric constant at 1 MHz	DIN 53483	-	2,3
	Dielectric strength	VDE 0303	kV/mm	70
	Physiologically non-toxic	EEC 90/128	-	Yes
	FDA	--	-	Yes
	UV stabilized	--	-	carbon black
	Colour	-	-	black

Water Tank Green:

- ✓ 100% food-grade Imported material
- ✓ FDA approved (Verified by Supplier)
- ✓ Unique Design
- ✓ Double Layer
- ✓ Extra high durability & toughness
- ✓ Double Collar Brass Bulkheads
- ✓ Available in green color
- ✓ Extra 5% Storage capacity
- ✓ Tougher Lid
- ✓ Resistant to Environmental conditions
- ✓ Easy to install
- ✓ Environment amiable
- ✓ Sleek packing



TP Tank Plus:

- ✓ 100% food-grade Imported material
- ✓ FDA approved (Verified by Supplier)
- ✓ Innovative Design
- ✓ Triple Layer
- ✓ High Durability & Toughness
- ✓ Double Collar Brass Bulkheads
- ✓ Only available in White Color
- ✓ Extra 5% Storage capacity
- ✓ Strong Lid
- ✓ Easy to Install
- ✓ Environment Amiable
- ✓ Sleek packing



**WATER TANK
BLOW MOULD**



== GARDEN PIPES

	THICKNESS (MM)	LENGTH (M)	WEIGHT (KG)
3/4	2.0	100	14.00
3/4	2.5	100	18.40
3/4	3.0	100	24.00
3/4	3.5	100	27.89
3/4	4.0	100	31.00
1	2.0	100	19.40
1	2.5	100	24.30
1	3.0	100	28.90
1	3.5	100	33.70
1	4.0	100	38.70



REGISTRATION WITH GOVT AUTHORITIES



Government of Pakistan



Number. 020769

Pakistan Standards

Pakistan Standards and Quality Control Authority

Licence for the use of the Pakistan Standard Mark

Agreement No. 1281/L-2186

Licence No. SM/L-1281/2018

M/s. Alf Industry (SMC-Pvt.) Ltd.

Address: 04-KM, Mangla-Rairwind Road, Rairwind, Lahore.

Licence shall be valid from 25-May-20 to 24-May-22 and renewable as prescribed under the Rules.

THE FIRST SCHEDULE

PS Mark	Article / Process	Pakistan Standard(s)
1	2	3
	Plastic Piping Systems - Polyethylene (PE) Pipes and Fittings for Water Supply "Turk-Plast" Brand	QSS: 3580/2014(R)/ISO 4427

THE SECOND SCHEDULE

Article / Process	Unit	Marking Fee Per Unit	Mode of Payment
1	2	3	4
Plastic Piping Systems - Polyethylene (PE) Pipes and Fitting for Water Supply "Turk-Plast" Brand	Ex-Factory Price	0.05%	Through Bank Draft Quarterly

Sizes as per Annexure-A

Muhammad Yasin Agha

DIRECTOR

Place Lahore

Date: 3-Nov-20

REGISTRATION WITH GOVT AUTHORITIES



Pakistan Standards & Quality Control
Authority
Ministry of Science & Technology
Government of Pakistan

Directorate of CA-Lahore Zone

Tel: 0092 – 42 – 99332242
E-mail: directorcanorth@gmail.com
Website: www.psqa.com.pk

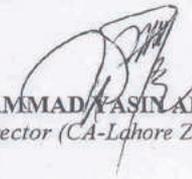
SDC-CA(L-1510)

ANNEXURE-A

Dated: 13-07-2020

**LIST OF SEVEN (07) SIZES OF PVC-U PRESSURE PIPES FOR COLD POTABLE WATER
"TURK-PLAST" BRAND FOR THE CONFORMANCE MARK LICENCE # CM/L-145/2011
OF M/S. ALIF INDUSTRY (SMC-PVT.) LTD, LAHORE VALIDITY 01-JAN-20 TO 31-DEC-21
AGAINST THE REQUIRMENT OF PSS: 3051/2017(R)**

<i>Sr. No.</i>	<i>Nominal Size DN/OD</i>	<i>Nominal Pressure of Pipe & Pipe series</i>	<i>Brand</i>
1	2"	D- Class (Gray)	Turk-Plast
2	3"	B- Class (Gray)	Turk-Plast
3	4"	B- Class (Gray)	Turk-Plast
4	6"	B- Class (Gray)	Turk-Plast
5	8"	B- Class (Gray)	Turk-Plast
6	10"	B- Class (Gray)	Turk-Plast
7	12"	B-Class (Gray)	Turk-Plast


(MUHAMMAD YASIN AKHTAR)
Director (CA-Lahore Zone)



Standards Development Centre, 125 – A, Quaid – E – Azam Industrial Estate, Kot Lakhpat, Lahore.



REGISTRATION WITH GOVT AUTHORITIES



Serial No. 1555 Registration No. DP&W/E-2/WS/25/2011

 GENERAL HEADQUARTER
PAKISTAN

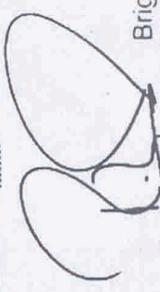
ENGINEER-IN-CHIEF'S BRANCH CERTIFICATE OF ENLISTMENT/REGISTRATION

M/s Alif Plastic Industry (Pvt) Ltd., Lahore (Turk Plast)

HAVE BEEN ENLISTED/REGISTERED IN CATEGORY "C" FOR SUPPLY OF FOLLOWING PRODUCTS
PPRC Fittings only Dia; 32mm, 40mm, 50mm &

1.	PPRC Pipe with fittings Dia; 20mm and 25 mm	2.	63mm
3.	XXXX	4.	XXXX
5.	XXXX	6.	XXXX

This Certificate is Valid/Renewed up to : 31 Dec 2022


Brig
For Engineer-in-Chief
(Raza Noor Ali Khan)

Date 3 Aug 2021

 (NON TRANSFERABLE)
ENR

REGISTRATION WITH GOVT AUTHORITIES



REGISTRATION WITH GOVT AUTHORITIES



REGISTERED
General Headquarters
Engineer in Chief's Branch
Directorate of Planning & Works
Rawalpindi
Tel: 9270526
No 2001/Regn/Alif/DP&W/E3
9 Aug 2021

To: DGW&CE (A) GHQ, Rawalpindi
DW&CE (Navy) Islamabad
DW&CE (PAF) Chaklala
DW&CE (DP) GHQ, Rawalpindi
DW&CE (DCI) Rawalpindi



Information: M/S Alif Plastic Industry (Pvt) Ltd
4-KM Manga Road Near Superior Textile Mills Raiwind, Lahore

Subject: Enlistment / Registration of Manufacturers/ Suppliers for MES

- M/S Alif Plastic Industry (Pvt) Ltd, Lahore is enlisted as a manufacturer-cum-supplier with MES in "Cat-C/ Water Supply /Stores/Fitting for their fol products of Turk Plast Brand (Price List Att) -
 - PPRC Pipe with Fittings Dia; 20mm and 25mm
 - PPRC Fittings only, Dia; 32mm, 40,50 & 63mm
- Enlistment of the firm is valid up 31 Dec 2022 and will automatically stand cancelled/ terminated on the expiry of this date.
- Relevant data/details of their products/supply items are as under. -
 - The products offered conform International Standard Specifications: ISO 9001-2015, 14001
 - Following guarantee/warranty is offered: -
 - For replacement - 02 Year
 - For repairs - 02 Year
 - Backup/Repair services - 02 Year
 - M/S Alif Plastic Industry (Pvt) Ltd, Lahore will operate directly all over Pakistan through its distributors.
- All wings/formations undertaking procurement/incorporation of products covered under this letter shall be responsible to ensure the quality of material as per standard specifications claimed to be followed by the manufacturer/supplier. Feedback about performance of firm and the products be fwd to this Dte each year by 31 Dec 2021.
- Information Addressee Only: Enlistment certificate bearing serial no 1555 dated 03 Aug 2021 is enclosed and your registration number will be DP&W/E-2/WS/25/2011 for future correspondence with all MES formations.
- Please acknowledge receipt.



Lt Col
For Engineer-in-Chief
(Muhammad Sardar)

Encl: Enlistment Certificate No. 1555 (for information addressee only)

Distribution:

- | | |
|--|------------------------|
| 1. DW&CE (PMO) C/O JSHQ, Chaklala | 6. DI&E |
| 2. HQ FWO, R.A Bazar, Rawalpindi | 7. DD&C |
| 3. MES School, MCE, Risalpur | 8. R&S Dte (Rev Sec) |
| 4. Housing Dte, Rawalpindi (Store Sec) | 9. E&M Sec (E-4) Local |
| 5. All ACES/CMES/GES | 10. HQ Engr NLC |
| 11. HQ SPD | |

REGISTRATION WITH GOVT AUTHORITIES



DHA Bahawalpur Head Office
Jinnah Avenue (MB-02)
APE Canal Road Bahawalpur
PO Box No 50
Tel: 111-111-518/0622286280
No. 278/P&D / Mfrs / DHAB
14 February 2022

To: **M/S Alif Industry (SMC) Pvt Ltd**
97, Circular Road
Lahore, Pakistan
Tel: 092-42-111665740, 0321-4782833

Subject: **Enlistment of Firm as Manufacturer / Supplier / Vendor for the Year 2021-23**

1. It is intimated that your firm has been enlisted with DHA Bahawalpur as Manufacturer / Supplier. Your payment against enlistment fee received vide draft number 08133338 dated 8 February 2022 is hereby acknowledged.
2. **Registration / Enlistment number** of your firm is DHAB/010/Mfrs/2021, which may be quoted in future correspondence. This enlistment will expire on 30 Jun 2023. You may apply for renewal of the same with effect from 1 June 2023.
3. Forwarded for information / record, please.

Acting Additional Director Contracts
(Planning & Development Branch)

”ذی ایچ اے بہاولپور ہے اب بہاولپور کی نئی پہچان“۔

REGISTRATION WITH GOVT AUTHORITIES



DHA Bahawalpur Head Office
Jinnah Avenue (MB-02)
APE Canal Road Bahawalpur
PO Box No 50
Tel: 111-111-518/0622286280
No: 278 / P&D / Enlist / DHAB
28 January, 2022

To: ✓
M/S Alif Industry (SMC) Pvt Ltd
97, Circular Road
Tel: 092-42-111665740, 0321-4782833
Lahore, Pakistan

Subject: Enlistment of Firm for Year 2021-23 - DHA Bahawalpur

1. It is intimated that your firm has been shortlisted for enlistment / registration as vendor / manufacturer with DHA Bahawalpur. Initially enlistment will be valid for a period of two years 2021-23. However, enlistment letter will be issued on receipt of Enlistment fee amounting to Rs 80,000/- (Rs 40,000/ year) in shape of Bank Draft/ Pay Order in favour of DHA Bahawalpur.
2. Forwarded for your information / necessary action, please.


A/Additional Director Contracts
(Ghulam Abbas)
Planning & Development Branch

”ڈی ایچ اے بہاولپور ہے اب بہاولپور کی نئی پہچان۔“

REGISTRATION WITH GOVT AUTHORITIES



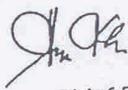
Defence Housing Authority
Gujranwala
Near Chenab Gate
GT Road - Gujranwala
Telephone No: 055 - 3866151
E-Mail: devbr@dhaqwa.com
No. 111 / 21 / Development
16 November 2021

To: ✓
Alif Industry (SMC) Pvt Ltd (Turk Plast)
97-Circular Road, Lahore
(0321-3255303)

Subject: Enlistment with DHA Gujranwala for Year 2021-22

Our letter number 111/CE/Manufacturer/18 dated 30 June 2021 and your letter number 221 dated 10 August 2021 refers.

1. Management of Defence Housing Authority (DHA) Gujranwala is pleased to inform that your Firm has been enlisted in **Cat M-1** for the Year 2021-22 as **Manufacturer**. Your esteemed Firm is now eligible to provide / supply construction material / stores. Rates of supplies shall be competitive to market and special discounts may be extended for DHA works / developers.
2. Enlistment is required to be renewed annually with renewal fee @10% of registration fee in the form of Bank Draft in favour of DHA Gujranwala.
3. In case at any stage, it is found that information / data provided vide your enlistment document is incorrect or suppressed, enlistment is liable to be withdrawn at the sole discretion of Defence Housing Authority Gujranwala.
4. It is also informed that your Firm has been awarded registration number **DHA/Gwa/Fiber/Pipe/M1-15/2021**.
5. Forwarded for information / necessary action, please.


Colonel
Chief Engineer
(Adnan Ahmed Khan)

REGISTRATION WITH GOVT AUTHORITIES

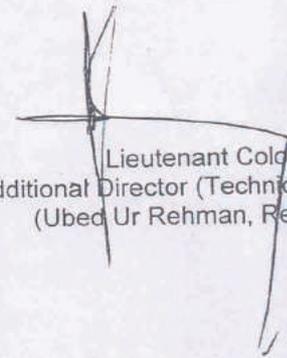


Defence Housing Authority
Main Office Complex Block - A,
Commercial Area Phase-VI DHA,
Lahore Cantt
Telephone Number: 111 342 547
Fax No. 042 - 37180295
No. 408 / 348 / E / EES / Elect / CE
18 April 2019

To, M/S Alif Plastic Industry
4-KM Manga
Raiwind Road,
Lahore.

Subject: Registration of Firm as Manufacturer with DHA Lahore for the Year 2019-20

1. This is to inform you that M/S Alif Plastic Industry has been enlisted in DHA Lahore as a approved manufacturer with product brand name Turk Plast for "PPRC Pipe, Fittings upto 63mm, HDPE Pipe, UPVC & Electric Conduits only".
2. You are directed to deposit Rs 25,000.00 (Rupees Twenty Five Thousand only) in DHA Main Office Complex, Ph-VI DHA Lahore, on account of registration fee (one time) and Rs 15,000.00 (Rupees Fifteen Thousand only) will be charged annually for renewal of enlistment with DHA Lahore, in case of non deposit of fee the enlistment will be cancelled.
3. Forwarded for your information and necessary action, please.


Lieutenant Colonel
Additional Director (Technical)
(Ubed Ur Rehman, Retd)

REGISTRATION WITH GOVT AUTHORITIES

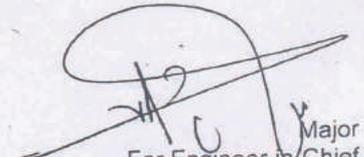


REGISTERED
General Headquarters
Engineer in Chief's Branch
Directorate of Planning & Works
Rawalpindi
Tel: 9270526
No.2001/Regn/Alif/DP&W/E-3
06 Aug 2021

To: **M/S Alif Plastic Industry (Pvt) Ltd**
4-KM Manga Road Near Superior Textile Mills Raiwind, Lahore

Subj: - Enlistment/ Registration of Manufacturers/Suppliers for MES

1. Your firm has been considered for Provisional Enlistment of one year in Cat- C as per RI-657/19 for Sanitary Fitting (Turk plast Brand).
2. You are, therefore, advised to deposit requisite enlistment/ registration fee of Rs.100,000/- (Non-Refundable) in shape of Bank Draft/Pay Order in favour of "E-in-C's Branch (DP&W) GHQ, Rawalpindi" for issue of enlistment certificate.


Major
For Engineer-in-Chief
(Muhammad Ali Zafar)

**REGISTRATION WITH
GOVT AUTHORITIES**



**Housing Directorate
Adjutant General's Branch
General Headquarters**



Performance Certificate

*In recognition of valuable contributions in Pak Army
Housing Projects, this certificate is presented to*

M/S ALIF PLASTIC INDUSTRY (TURK PLAST)

Director General Housing

29 March 2017

REGISTRATION WITH GOVT AUTHORITIES



RESTRICTED

Defence Housing Authority Multan
1 Multan Public School Road Multan
Telephone: 061-6306365 & 6516036
E Mail: planning.development@dhamultan.org
File No. 701/4/P&D/DHA

25 April 2022

To: M/s Alif Industry (SMC-Pvt) Ltd ✓
4-Km Manga Road, Near Superior
Textile Mills Raiwind Lahore
Cell 042-35395068

Information: M/s ACES Site Office DHA Multan
M/s ESAC
M/s Pillar & Sons
M/s Javed Electrical Engineers

Subject: Enlistment of Manufacturer / Suppliers with DHA Multan

Your letter number-TP/Proj/0131 dated 22 March 2022 refers.

1. Your application for enlistment with DHA Multan has been approved as manufacturer / supplier with following product items upto 20 April 2024 for 2 x years and is extendable on submission of renewal fee. By virtue of this, your firm / company is eligible to participate in tendering at DHA Multan projects with enlistment No DHA/MTN/SUP/ENL-32/2022:-

- a. PPRC / GFR Pipes & Fitting
- b. uPVC Pressure / SWV Pipes & Fitting
- c. uPVC Electrical Conduit & Fitting
- d. Turkplast HDPE Pipes
- e. Turkplast CP Sanitary Fittings
- f. Turkplast Ceramics
- g. Turkplast Water Tanks
- h. Turkplast Garden Pipes
- i. Turkplast Foam Board

2. It is also added that in case at any stage, it is found that information / data provided by your firm for enlistment is incorrect or suppressed, enlistment will be liable to withdrawn at the sole discretion of Defence Housing Authority Multan and shall also tested periodically to ensure the quality of product.

3. Forwarded for information / necessary action, please.

Lieutenant Colonel
Director (Planning)

(Hamble Taimoor Ahmad Hashmi, Retired)

REGISTRATION WITH GOVT AUTHORITIES



FAX NO. :
For kind attention
Javed Waheed Khan
GM Marketing
RESTRICTED

12 Jun. 2013 12:23 P 1
DDHCS-
F.P.
General Headquarters
AG's Branch (Housing Dte)
Rawalpindi
Telephone GHQ: 34563
30/27/HD/Stores/Gen/Alif
4 April 2013

To: M/S Alif Plastic Industry
Mahmood Sons, 200 Ferozpur Road,
54600 Lahore.
Tel: 042-37538802
Fax: 042-37538845-6

Subject: Enlistment / Registration as a Supplier

1. With reference to your letter no. 286/003/013 dated 26 March 2013. Your firm has been provisionally enlisted / registered with Housing Directorate as supplier of ECP, PPRc, UPVc pipes & fittings.
2. Please acknowledge.

[Signature]
Lt Col (R)
For Adjutant General
(Shahid Naveed)

REGISTRATION WITH GOVT AUTHORITIES



REGISTERED



PAKISTAN ATOMIC ENERGY COMMISSION

WASO 1(22)/2011

1563

Dated: 13/12/2012

M/S Alif Plastic Industry,
Shahzad Hamid Traders,
97-circular road Lahore.

Subject: PREQUALIFICATION AS SUPPLIER/MANUFACTURER.

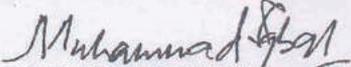
Dear Sir(s),

I am directed to refer to your letter on the above referred subject and to inform that Competent Authority has approved your enlistment as supplier/manufacturer for Each type of Pipes with brand name Esen & Turk Plast for use in the PAEC Projects.

You are, therefore advised to keep a strict vigilance on the quality of products. In case of any failure or deviation from the specification, the firm shall be removed from the approved list of Suppliers/Manufacturers.

PAEC reserves the right to withdraw the prequalification without assigning any reason.

Yours faithfully,


(MUHAMMAD IQBAL)
SR. ADMIN OFFICER (WORKS)

Al Noor Plaza,, Iqbal Town, Khanna Dak Sohna, Near Expressway P.O.Box 1998,
ISI AMABAD. PHONE: +92-0512612248, FAX: +92-0512612250

REGISTRATION WITH GOVT AUTHORITIES



GOVERNMENT OF PAKISTAN
PAKISTAN PUBLIC WORKS DEPARTMENT
OFFICE OF THE DIRECTOR GENERAL

No.S.E (SR&C)/Approval/2013

Islamabad, the 10th December, 2013

OFFICE MEMORANDUM

Subject: - **REGISTRATION OF ALIF PLASTIC INDUSTRY, LAHORE AS MANUFACTURER OF UPVC PIPES, PPR-C, PVC PRESSURE PIPE AND ELECTRICAL CONDUIT.**

The Director General, Pak.PWD has been pleased to accord approval of the following products of M/S Alif Plastic Industry, Lahore being manufactured under the brand name of TURKPLAST for use in Pak. PWD works, on the recommendation of the Standardization Committee.

A. U-PVC Pressure Pipes AS PER BS-3505 & PS-3051/91

Normal Size	Mean Outside Diameter (mm)		WALL THICKNESS (MM)							
			Class-B 200 Ft. Head (6 BAR)		Class-C 300 Ft. Head (9 BAR)		Class-D 400 Ft Head (12 BAR)		Class-E 500 Ft.Head (15 BAR)	
	Min.	Max.	Min.	Mix.	Min.	Mix.	Min	Max.	Min	Max.
½"	21.2	21.5	-	-	-	-	-	-	1.7	2.1
¾"	26.6	26.9	-	-	-	-	-	-	1.9	2.5
1"	33.4	33.7	-	-	-	-	-	-	2.2	2.7
1 - ¼"	42.1	42.4	-	-	-	-	2.2	2.7	2.7	3.2
1 - ½"	48.1	48.4	-	-	-	-	2.5	3.0	3.1	3.7
2"	60.2	60.5	-	-	2.5	3.0	3.1	3.7	3.9	4.5
2 - 1/2"	75.0	75.3	-	-	3.0	3.5	3.9	4.5	4.8	5.5
3"	88.7	89.1	2.9	3.4	3.5	4.1	4.6	5.3	5.7	6.6
4"	114.1	114.5	3.4	4.0	4.5	5.2	6.0	6.9	7.3	8.4
5"	140.0	140.4	3.8	4.4	5.5	6.4	7.3	8.4	9.0	10.4

(Contd. Page/2)

REGISTRATION WITH GOVT AUTHORITIES



-2-

6"	168.0	168.5	4.5	5.2	6.6	7.6	8.8	10.2	10.8	12.5
7"	193.5	194.0	5.2	6.0	7.7	8.9	10.1	11.7	12.4	14.3
8"	218.8	219.4	5.3	6.1	7.8	9.0	10.3	11.9	12.6	14.5
10"	272.6	273.4	6.6	7.6	9.7	11.2	12.8	14.8	15.7	18.1
12"	323.4	324.3	7.8	9.0	11.5	13.3	15.2	17.5	18.7	21.6
14"	355.0	356.0	8.5	9.8	12.6	14.5	16.7	19.2	20.5	23.6
16"	405.9	406.9	9.7	11.2	14.5	16.5	19.0	21.9	23.4	27.0

B. UPVC Soil, Waste & Vent Pipes. AS PER BS-5255 & 4514

Normal Size		Outside Diameter (mm)		Wall Thickness (mm)	
Inch.	Mm	Min.	Max.	Min.	Max.
2	50	60.2	60.5	2	2.4
3	82	88.7	89.1	3.2	3.8
4	110	114.1	114.5	3.2	3.8
6	160	168	168.5	3.2	3.8
8	200	218.8	219.4	4.5	5

C. U-PVC Electrical Conduits AS PER BS-6099 & PS-1905

Normal Size	Outer Diameter (mm)		Wall Thickness (mm)	
	Min.	Max.	Min.	Max.
1/2 "	17.0	17.3	0.96	1.16
3/4"	21.2	21.5	1.09	1.26
1"	26.6	26.9	1.16	1.36
1-1/4"	33.4	33.7	1.44	1.67
1-1/2"	42.1	42.4	1.60	1.84
2"	60.2	60.5	1.70	1.90
3"	88.7	89.1	1.80	2.00
4"	114.1	114.5	1.90	2.10

(Contd. Page/3)

REGISTRATION WITH GOVT AUTHORITIES



-3-

D. PPR-C (Polypropylene Random Copolymer) PN -10 & 20 pipes for water supply as per DIN-8077 & 8078 Standard

Pipe Dimensions (mm)	PN 10		PN 20	
	Outer Diameter	Wall Thickness	Outer Diameter	Wall Thickness
20	20	1.9	20	3.4
25	25	2.3	25	4.2
32	32	3	32	5.4
40	40	3.7	40	6.7
50	50	4.8	50	8.4
63	63	5.8	63	10.5
75	75	6.9	75	12.5
90			90	15.0
110			110	18.4

(S.M.ZOHAIR KHALID)

Superintending Engineer (SR&C)

Distribution:

- 1) The Chief Engineer (North), Pak. PWD, Islamabad.
- 2) The Chief Engineer (Central Zone), Pak. PWD, Lahore.
- 3) The Chief Engineer (South), Pak. PWD, Karachi.
- 4) The Chief Engineer (West), Pak. PWD, Quetta.
- 5) The Superintending Engineer, Central E/M Circle, Pak. PWD, Islamabad
- 6) The Superintending Engineer, Central Civil Circle-I, Islamabad
- 7) M/S Alif Plastic Industry Shahzad Hammad Traders, 97-Circular Road, Lahore.

REGISTRATION WITH GOVT AUTHORITIES



PAKISTAN HOUSING AUTHORITY
MINISTRY OF HOUSING & WORKS
GOVERNMENT OF PAKISTAN

No. PHA/ISL/DG(C&PM)/010/358
May 11, 2010

M/s Turk Plast,
Lahore,
Pakistan

Subject: PROVISIONAL PRE - QUALIFICATION OF M/S TURK PLAST

Based upon the initial scrutiny / analysis of our core consultant, authority has been pleased to pre-qualify your firm on provisional basis.

2. Pre-qualification will, however, be confirmed after completion of all necessary codal formalities.


Manager
(C&PM)
11/11/10

Cc:
1. Section File

REGISTRATION WITH GOVT AUTHORITIES



Communication & Works
Department

CHIEF ENGINEER PUNJAB RESEARCH & DESIGN DEPARTMENT LAHORE

To

M/s Alif Plastic Industry (Turk Plast),
4-KM Manga Road, Raiwind,
Lahore.

No. Enlistment- 1913

Dated: 01/09/2021.

Subject: RENEWAL OF M/S ALIF Plastic INDUSTRY (TURK PLAST), 4-KM MANGA Road, RAWIND, LAHORE AS approved MANUFACTURER/SUPPLIER OF UPVC & PPRC PIPES & FITTINGS IN PUNJAB BUILDINGS DEPARTMENT (C&W DEPARTMENT) FOR THE YEAR 2021-22.

Reference: Director, Building Research Station, Lahore recommendations vide No.102-R/B/2412 dated 30-08-2021 and enlistment committee meeting dated 15-07-2021 (Serial No 30)

Your firm has been approved by the Competent Authority for Registration/ Enlistment/ Renewal as Manufacturer / Supplier of **UPVC & PPRC Pipes & Fittings** only for the year 2021-22 in Punjab Buildings Department/ C&W Department (registration fee deposited vide **GR No.260328** dated **27-08-2021** with BRS Lahore) in term of the Secretary to Government of the Punjab, Communication & Works Departments, Lahore Notification No. SOB-II/78-Vol-II(Part-II), dated 26.10.1999, No SOB-II(C&W)2-11/78, dated 27.10.2017 and even No dated 13.12.2018, subject to the following conditions:-

1. Should the Department be dis-satisfied with the quality of the products, behaviour, conduct and technical efficiency, the Chief Engineer, Punjab Research & Design Department, may remove your name from the approved list of manufacturer even black list you, debarring you from manufacturing/ supplying throughout the Punjab in any Government Department without assigning any reason.
2. You are not allowed to change the name of the firm/ factory. In case of change of name you will have to seek fresh enlistment.
3. You will have to produce the Government receipt at the time of supply of your products, if demanded by the staff of Buildings Department. The said Government receipt has also to be produced at the time of renewal of your firm/ factory for the next financial year.
4. If you apply for renewal after the expiry of due date i.e. 30th June of proceeding financial year, you would be liable to pay a penalty @ 25% of the renewal fee per quarter.

DA/ As above


Deputy Director
for Chief Engineer
Punjab Research & Design Department
Lahore

Endorsement. No. CE (R&D) /

Dated: 1 / 1 / 2021.

A copy is forwarded for information and necessary action to:-

1. The Secretary Govt. of the Punjab Communication & Works Department, Lahore.
2. The Addl. Secretary (Tech -II) Communication & Works Department, Lahore.
3. All the Chief Engineers in Communication & Works Department, Punjab.
4. The Director, Buildings Research Station, Lahore.
5. The Director (P&D), Punjab Buildings Department, Lahore.

Deputy Director
for Chief Engineer
Punjab Research & Design Department
Lahore

REGISTRATION WITH GOVT AUTHORITIES



Communication & Works
Department

CHIEF ENGINEER PUNJAB RESEARCH & DESIGN DEPARTMENT LAHORE

No. (R&D) Enlistment / 10

Dated: 01 / 01 / 2020.

To

✓
M/S Alif Plastic Industry (Turk Plast),
4-KM Manga Road Raiwind, Lahore.

Subject: - **RENEWAL OF FIRM M/S ALIF PLASTIC INDUSTRY (TURK PLAST) AS
APPROVED MANUFACTURERS /SUPPLIERS OF UPVC & PPRC PIPES
ONLY IN BUILDING DEPARTMENT (C&W) DEPARTMENT FOR THE
YEAR 2019-2020**

Your firm has been approved by the Competent Authority for Registration as approved Manufacturers /Suppliers of UPVC & PPRC Pipes only for the year 2019-2020 in Punjab Buildings Department/C&W Department (registration fee deposited vide GR No. 361107/3612 dated 26-12-2019 with BRS Lahore) in term of the Secretary to Government of the Punjab Communication & Works Department, Lahore Notification No. SOB-II/78-Vol-II (Part-II) dated 26-10-1999, No. SOB-II(C&W) 2-11/78 dated 27-10-2017 and even No. dated 13-12-2018 subject to the following conditions:-

1. Should the Department be dis-satisfied with the quality of the products, behaviour, conduct and technical efficiency, the Chief Engineer, Punjab Research & Design Department, may remove your name from the approved list of manufacturer even black list you, debarring you from manufacturing/supplying throughout the Punjab in any Government Department without assigning any reason.
2. You are not allowed to change the name of the firm/factory. In case of change of name you will have to seek fresh enlistment.
3. You will have to produce the Government receipt at the time of supply of your products, if demanded by the staff of Building Department. The said Government receipt has also to be produced at the time of renewal of your firm/factory for the next financial year.
4. If you apply for renewal after the expiry of due date i.e. 30th June of proceeding financial year, you would be liable to pay a penalty @25% of the renewal fee per quarter.


DIRECTOR (TECH)
for Chief Engineer

Endst.No.(R&D) Enlistment/

dated / /2020

1. The Secretary, Govt. of the Punjab Communication & Works Department, Lahore.
2. The Addl. Secretary (Tech.II), Govt. of the Punjab Communication & Works Department, Lahore
3. All Chief Engineers, Communication & Works Department, Lahore,
4. The Director, Building Research Station, Lahore.
5. The Director P&D, Punjab Building Department Lahore.

DIRECTOR (TECH)
for Chief Engineer

REGISTRATION WITH GOVT AUTHORITIES



PUBLIC HEALTH ENGINEERING DEPARTMENT KHYBER PAKHTUNKHWA PESHAWAR

1-Police Road, Peshawar, Ph# 091-9212849 & 091-9223425

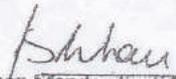
No. DPM/3-23/2016-17/Standardization/1400

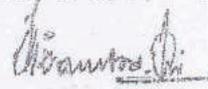
Dated Peshawar 13/02/2017

Registration Certificate

M/S Alif Plastic Industry Lahore, 4-Km, Manga Raiwand, Lahore is hereby registered in PHE Department Khyber Pakhtunkhwa and their products named Turk PVC Pipes of nominal size ranging from ½" to 8", BS 3505, PS-3051 and Turk HDPE Pipes of nominal size 20mm to 110mm, DIN 8074-75 are hereby standardized by the standardization committee of PHE Department Khyber Pakhtunkhwa, subject to the observance of the following formalities and conditions.

1. The manufacturer will provide the pipe delivery details supplied to the contractors/ authorized dealers to the office of Superintending Engineer concerned on quarterly basis.
2. The manufacturer's authorized dealers will be bound to issue sales tax invoice for each consignment supplied to the contractor with the name of purchaser and name of work.
3. The firm will be bound to provide test reports (along with other documents) of the pipes supplied for each delivery to the contractors with a direct copy thereof to the concerned Divisional Officer.
4. Each pipe will bear the engraved stamp of the manufacturer with pipe classification, identification code as per international standard specifications.
5. The firm will be 100% responsible for the quality of pipes supplied to the contractor. Unsatisfactory performance and below specification pipes supplied to contractors will result in legal action, rejection of material supplied and black listing of the firm.
6. In case the above conditions are not fulfilled, the supply will be rejected.
7. This standardization is valid up to June 30, 2020, subject to re-evaluation by the Standardization Committee at any time.
8. This registration is subject to production of ISO 9001:2008 quality management certificate for 2016-17 from authorized recognized certificate organization.
9. The NTN No. of the firm is 0219047-8.

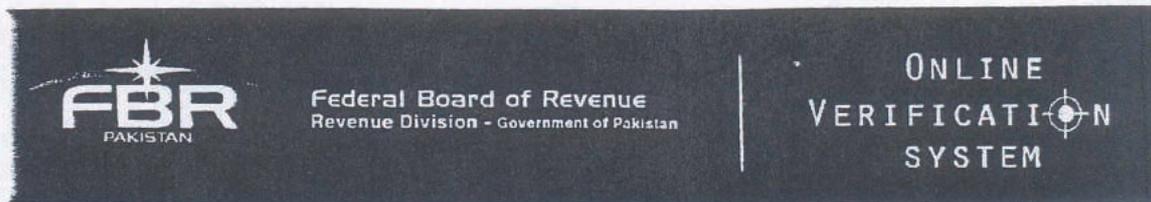

Chairman Standardization
Sub-Committee PHE Department


Chairman Standardization
Committee PHE Department

CERTIFICATE OF FBR REGISTRATION



Page 1 of 1



Online NTN/STRN Inquiry

Printed On: Thursday, May 17, 2018 12:20:35 PM

Registration No 7273433
Reference No 7273433-2
STRN 3277876141195
Name ALIF INDUSTRY (SMC-PVT.) LIMITED
Category Company
PP/REG/INC No. 0097600
Address 174, SHAH JAMAL COLONY, ICHHRA LAHORE, Lahore Data Gunj Bukhsh Town
Registered On 26-AUG-2016
Tax Office RTO (CORPORATE) LAHORE
Registration Status Income Tax: Active , Sales Tax: OPERATIVE

Sr.	Business/ Branch Name	Business/ Branch Address	Principal Activity
2	ALIF INDUSTRY (SMC-PVT) LIMITED	4-KM MANGA ROAD, NEAR SUPERIOR TEXTILE MILLS, RAIWIND, Lahore Wahgah Town	222000-Manufacturing/Manufacture of plastics products/Manufacture of plastics products
3	ALIF INDUSTRY (SMC-PVT) LIMITED	GAJJU MATTA, 23 KM, FEROZEPURE ROAD, Lahore Nishter Town	222000-Manufacturing/Manufacture of plastics products/Manufacture of plastics products
1	ALIF INDUSTRY (SMC-PVT.) LIMITED	174, SHAH JAMAL COLONY, ICHHRA LAHORE, Lahore Data Gunj Bukhsh Town	010000-Importer/Exporter/Importer/Importer

CERTIFICATE OF REGISTRATION ISO 9001-2008



10/5/2020

Initial Date of Registration in PEC: Jun 02, 2018

Scan QR code to view details.



Serial No. 477250
PEC-11

PAKISTAN ENGINEERING COUNCIL
Licence No: 69671 Category: C6 Validity: 30 June, 2023
LICENCE OF PAKISTANI CONSTRUCTOR/OPERATOR
(Under the bye-laws of Pakistan Engineering Council 1987)

This is to certify that M/s ALIF INDUSTRY(SMC) PVT LTD (Licencee), with its registered office at 4-K M MANGA , RAIWIND ROAD LAHORE have been licenced under Construction and Operation of Engineering Works Bye-laws 1987, until the validity date to construct/operate engineering works, the construction/capital cost of which does not exceed Rs. 25 (TWENTY FIVE) million provided the licencee fulfills all the qualification requirements prescribed by Client or Employer for a particular engineering work; and subject to the licencee continuing to fulfill all the requirements of the bye-laws.

Field of Specialization BC01 - BC02 - CE01 - CE04 (Irrigation Only) - CE09 - CE10 - EE01 - EE02 - EE03 - EE04 - EE06 - EE07 - EE08 - EE09 - EE10 - EE11 (Solar) - EE11 (General Electrical Works Only) - ME07 (General Mechatronics Works) - (EIGHTEEN ONLY)
(Specialization Code Nos. for detail see overleaf)

Date of Issue: Oct 8, 2020
(Lahore)



[Signature]
Registrar
Pakistan Engineering Council,
Islamabad.

Note
1. If a firm does not get renewal of its license within a year after expiry of its license, the firm may be renewed after payment of outstanding fee if entire defaulting period plus surcharge at the rate of 5% of defaulting fee amount, or as prescribed from time to time.
2. The employer must ensure employment of engineers whose names are mentioned on backside of the licence. The Consulting Engineer (the Engineer incharge in case the consultant is not appointed) shall monitor the number of engineers employed by the Constructor/Operator and inform the Council accordingly.
3. Owner(s) of the firm shall be held responsible, if any information, document or paper submitted by him/them is found incorrect or forged.

11
8
1
9
0

12

CERTIFICATE OF REGISTRATION ISO 9001-2008



Book No.B 06036	QDP/7.5/MSD/F-04	Serial No.B 603578
MEMBERSHIP CERTIFICATE MEMBERSHIP NO: 72470-C		
Name & address of Chamber XXXXXXXXXX	The Lahore Chamber of Commerce & Industry	
	11 Shara-e-Aiwan-e-Sanat-o-Tijarat, Lahore.	
	(Affiliated with the Federation of Pakistan Chambers of Commerce & Industry)	
CERTIFIED that M/s ALIF INDUSTRY (SMC-PVT) LTD		
	(name and address of Member Firm / Company)	
174, SHAH JAMAL COLONY, LAHORE		
G.S.T. No. 3277876141195	N.T.N. No. 7273433-2	
is a member of this Chamber XXXXXXXXXX	Since 5-Aug-2010	
		
THIS CERTIFICATE shall be valid upto the 31 MAR 2019 unless (date)		
otherwise notified to the NTN / GST Registration authority / Scheduled Bank concerned.		
		Given on this 26 day of Jan 20 18
Signature of Secretary General 		
Countersigned by: ZESHAN KHALIL Vice President 2017-2018		

CERTIFICATE OF REGISTRATION ISO 9001-2008



Alif Industry (SMC-Pvt) Limited
4 Km, Manga Raiwind Road, Near Superior Textile Mills,
Raiwind, Lahore – Pakistan

American Global Standards, LLC (AGS) issues this certificate to the firm named above,
having assessed and approved the firm's Environmental Management System and finding the
system conforms to the standards of:

– ISO 14001:2015

The Environmental Management System is applicable to the following:

**Manufacturing and Export of PPR-C, U-PVC, PE Pipes and
Fittings, Electrical Conducts, Garden Hose & Sanitary Fittings**

This approval is subject to the firm maintaining its system to the required standards, which will be
monitored by AGS. In the issuance of this certificate, AGS assumes no liability to any party other
than the firm named above, and then only in accordance with the agreed upon Environmental
System Assessment Agreement. †

Certification Number: AGS-P-180023-E
Original Approval: March 01, 2018
Date of Issue: March 01, 2018
Date of Expiration: February 28, 2021


For and On Behalf of American Global
Standards, LLC



USA Office: 1187 Coast Village Road, Suite 495, Montecito, CA 93108
Tel: 617-838-4848
www.americanglobal.org | info@americanglobal.org



CERTIFICATE OF REGISTRATION ISO 9001-2008



ADVANCED
CERTIFICATION

CERTIFICATE OF REGISTRATION

THIS IS TO CERTIFY THAT THE MANAGEMENT SYSTEMS OF

Alif Industry (TURKPLAST)

4km, Manga Raiwind Road, Near Superior Textile Mills, Raiwind, Lahore

HAVE BEEN ASSESSED AND REGISTERED BY
ADVANCED CERTIFICATION LIMITED AGAINST THE PROVISIONS OF

ISO 9001:2015

FOR THE SCOPE OF

Manufacturing and export of PPR-C, U-PVC, PE Pipes and fittings, Electrical Conducts, Garden Hose & Sanitary Fittings

This registration is subject to the company continuing to maintain effective management systems to control the above that shall be monitored by Advanced Certification Limited

AUTHORISED BY

JAMES GIBB, DIRECTOR
Advanced Certification Ltd
Kestrel Court, Harbour Road
Portishead, Bristol, BS20 7AN, UK

T: +44 (0)1275 350 558
www.advancedcertification.co.uk
Co. Reg. 9089611

CERTIFICATE NUMBER 00883
ORIGINAL REGISTRATION DATE 16/03/2018
RE-ISSUE DATE 21/09/2021
RE-AUDIT DUE DATE 09/02/2024
CERTIFICATE EXPIRY DATE 15/03/2024



8872

THIS CERTIFICATE ONLY REMAINS VALID AS LONG AS THE ABOVE NAMED COMPANY COMPLIES WITH THE ADVANCED CERTIFICATION TERMS AND CONDITIONS
This Certificate remains the property of Advanced Certification Limited and must be returned upon reasonable request

TEST REPORTS OF OUR PRODUCTS



Department of Polymer & Process Engineering
University of Engineering & Technology Lahore-Pakistan

Ref No. Univ/PPE/1181

Dated 29-11-2021

Client Identity: Muhammad Hanif Khokhar, (Construction Manager), National Engineering Services Pakistan (Pvt.) Ltd.

Client Reference: 3976/13/MIK/01/329, Dated: 23-11-2021

Subject as per Client Mention: Establishment of Punjab Local Government Academy Building – Lahore
Testing of UPVC and PPRC

1. Dimensions

Sr.#	Sample ID	Test	Minimum Value (mm)	Maximum Value (mm)	Average Value (mm)
1	3" Dia uPVC Pipe (B-class) Turk Plast	Wall Thickness	3.07	3.16	3.12
		Outer Diameter	88.92	89.07	89.0
2	4" Dia uPVC Pipe (B-class) Turk Plast	Wall Thickness	3.61	3.75	3.69
		Outer Diameter	114.21	114.37	114.30

2. Density

Standard Used: ASTM D-792

Sr.#	Sample ID as per Client Mention	Minimum Value (g/cm ³)	Maximum Value (g/cm ³)	Average Value (g/cm ³)
1	3" Dia uPVC Pipe (B-class) Turk Plast	1.451	1.453	1.452
2	4" Dia uPVC Pipe (B-class) Turk Plast	1.452	1.455	1.454

3. Longitudinal Reversion Test

Standard Used: ISO 2505-2005

Sr.#	Sample ID as per Client Mention	Test Temp./Time	Observation
1	3" Dia uPVC Pipe (B-class) Turk Plast	150°C/1hr	Reversion occurred within limits
2	4" Dia uPVC Pipe (B-class) Turk Plast	150°C/1hr	Reversion occurred within limits

4. Dichloromethane Test

Standard Used: PS-3051/2017

Sr.#	Sample ID as per Client Mention	Observation
1	3" Dia uPVC Pipe (B-class) Turk Plast	No Attack
2	4" Dia uPVC Pipe (B-class) Turk Plast	No Attack

Dr. Asif Qaiser
Associate Professor
Department of Polymer & Process Engineering
University of Engineering & Technology, Lahore

Dr. Asif Qaiser
Chairman
CHAIRMAN
Polymer & Process
Engg. Deptt.
University of Engineering & Technology
LAHORE

NOTE:

- Results have been quoted based on the received sample.
- Average value of test no. 1 & 2 is based on three different test pieces
- Observation of test no. 3 & 4 is based on two test pieces



☎: +92-42 99029480 ☎: +92-42 99250202 @: chairmanpolymer@uel.edu.pk

TEST REPORTS OF OUR PRODUCTS



Department of Polymer & Process Engineering
University of Engineering & Technology Lahore-Pakistan

Ref No. Univ/PPE/118/

Dated: 29-11-2021

Client Identity: Muhammad Hanif Khokhar, (Construction Manager), National Engineering Services Pakistan (Pvt.) Ltd.

Client Reference: 3976/13/MHK/01/329, Dated: 23-11-2021

Subject as per Client Mention: Establishment of Punjab Local Government Academy Building – Lahore

Testing of UPVC and PPRC

1. Dimensions

Sr.#	Sample ID	Test	Minimum Value (mm)	Maximum Value (mm)	Average Value (mm)
1	25mm PPRC Pipe (PN-20) Turk Plast	Wall Thickness	4.32	4.46	4.40
		Outer Diameter	25.11	25.24	25.18
2	40mm PPRC Pipe (PN-20) Turk Plast	Wall Thickness	7.14	7.27	7.20
		Outer Diameter	40.17	40.33	40.25

2. Density

Standard Used: ASTM D-792

Sr.#	Sample ID as per Client Mention	Minimum Value (g/cm ³)	Maximum Value (g/cm ³)	Average Value (g/cm ³)
1	25mm PPRC Pipe (PN-20) Turk Plast	0.898	0.899	0.899
2	40mm PPRC Pipe (PN-20) Turk Plast	0.897	0.899	0.898

3. Longitudinal Reversion Test

Standard Used: ISO 2505-2005

Sr.#	Sample ID as per Client Mention	Test Temp./Time	Observation
1	25mm PPRC Pipe (PN-20) Turk Plast	135°C/1hr	Reversion occurred within limits
2	40mm PPRC Pipe (PN-20) Turk Plast	135°C/1hr	Reversion occurred within limits

4. Short Term Hydrostatic Pressure Test

Sr.#	Sample ID as per Client Mention	Test Pressure (bar) for 1 hour	Observation
1	25mm PPRC Pipe (PN-20) Turk Plast	30	No failure was observed
2	40mm PPRC Pipe (PN-20) Turk Plast	30	No failure was observed

5. MFI Test

Standard Used: ISO-1133

Sr.#	Sample ID as per Client Mention	Conditions(Temp/Load)	MFI (Average Value)
1	25mm PPRC Pipe (PN-20) Turk Plast	(230°C/2.16kg)	0.32gm/10min
2	40mm PPRC Pipe (PN-20) Turk Plast	(230°C/2.16kg)	0.33gm/10min

Dr. Atif Javaid
Associate Professor
Department of Polymer & Process Engineering
University of Engineering & Technology Lahore

Prof. Dr. Asif Ali Qaiser
Chairman
CHAIRMAN
Polymer & Process
Engg. Deptt
University of Engineering & Technology Lahore

NOTE:

- Results have been quoted based on the received sample.
- Average value of test no.1, 2 & 5 is based on three different test pieces.
- Observation of test no.4 is based on one test piece only, while observation of test no.3 is based on two test pieces.



☎: +92-42 99029480 ☎: +92-42 99250202 @: chairmanpolymer@uet.edu.pk

TEST REPORTS OF OUR PRODUCTS



Department of Polymer & Process Engineering
University of Engineering & Technology Lahore-Pakistan

Ref No. Univ/PPE/514

Dated: 07-08-2020

Client Identity: Sub Divisional Officer, Public Health Engg. Sub Division, Yazman.

Client Reference: 816-A, Dated: 16-06-2020

Subject as per Client Mention: Testing of PVC Pipes.

4. Dichloromethane Test

Standard Used: PS-3051/1991

Sr. #	Sample ID	Observation
1	3" Dia PVC Pipe (B Class)	Observed value fall in Type 1 (As per Standard PSS 3051/1991)
2	4" Dia PVC Pipe (B Class)	Observed value fall in Type 1 (As per Standard PSS 3051/1991)
3	6" Dia PVC Pipe (B Class)	Observed value fall in Type 1 (As per Standard PSS 3051/1991)
4	8" Dia PVC Pipe (B Class)	Observed value fall in Type 1 (As per Standard PSS 3051/1991)

5. Acetone Immersion Test

Standard Used: ASTM D2152-95/2003.

Sr. #	Sample ID	Observation		
		Attack on outside Surface	Attack on middle Surface	Attack on inside Surface
1	3" Dia PVC Pipe (B Class)	No	No	No
2	4" Dia PVC Pipe (B Class)	No	No	No
3	6" Dia PVC Pipe (B Class)	No	No	No
4	8" Dia PVC Pipe (B Class)	No	No	No

6. Longitudinal Reversion Test

Standard Used: ISO 2505-2005

Sr. #	Sample ID	Test Temperature/Time	Observation
1	3" Dia PVC Pipe (B Class)	150°C/1hr	Reversion was occurred within limits
2	4" Dia PVC Pipe (B Class)	150°C/1hr	Reversion was occurred within limits
3	6" Dia PVC Pipe (B Class)	150°C/1hr	Reversion was occurred within limits
4	8" Dia PVC Pipe (B Class)	150°C/1hr	Reversion was occurred within limits

Dr. Atif Javid

Dr. Atif Javid
Associate Professor
Department of Polymer & Process Engineering
University of Engineering and Technology, Lahore.

Prof. Dr. Asif Ali Qaiser
Chairman



NOTE:

1. Results have been quoted based on the received sample.
2. Observation of test no. 4, 5 & 6 is based on one test piece only.
3. Sample ID is as per Client Mention.



+92-42 99029480 +92-42 99250202 chairmanpolymer@uet.edu.pk

TEST REPORTS OF OUR PRODUCTS



GOVERNMENT OF PAKISTAN
 MINISTRY OF SCIENCE AND TECHNOLOGY
 PAKISTAN STANDARDS & QUALITY CONTROL AUTHORITY
QUALITY CONTROL CENTRE
 234-Pitac Compound, Ferozpur Road, Lahore. 042-99230617-18



TEST REPORT

Your Ref. No. SDC-CA(L-2186/2020)
 Dated:- 08-07-2020

Our Ref.No.QCC/4(360)/20-21 (1753)
 Dated:- 27.8.20

Sample received from: The Field Officer/Inspector,
 Report issue to: SDC-CA Central,
LAHORE.

No. of Samples: Eight (08).
 Specification against which tested.
 PS: 3580-2014 / ISO 4427

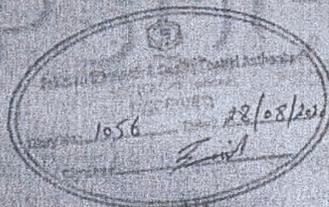
Subject :- Testing of samples stated to be HDPE Pipes "Turk Plast Brand"
 (Collected from M/s: Alif Industry SMC (Pvt.) Ltd., 4 KM Manga Raiwind Road, Raiwind).

The samples as received have been tested with the following results:-

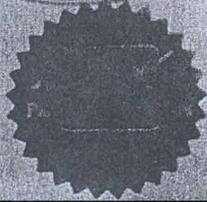
S. No.	Name of the tests.	Test Results Corresponding to Lab. Registration Nos.							
		PE/119 (25mm)	PE/120 (32mm)	PE/121 (40mm)	PE/122 (63mm)	PE/123 (75mm)	PE/124 (90mm)	PE/125 (110mm)	PE/126 (125mm)
1	Classification of Material.	PN-12.5	PN-20	PN-16	PN-10	PN-08	PN-10	PN-16	PN-16
2	Colour of Pipe.	Black	Black	Black	Black	Black	Black	Black	Black
3	Mean Outside Dia (mm)	25.2	32.2	40.3	63.2	75.3	90.4	110.5	125.6
4	Wall Thickness(mm)								
	Min.	2.1	3.8	3.8	3.9	3.8	5.5	10.4	11.4
	Max.	2.3	4.1	4.1	4.2	4.0	6.0	11.0	12.3
5	Melt Flow Rate at 190°C/5 Kg. (MER-g/10 Minutes)	0.28	0.28	0.27	0.29	0.28	0.29	0.28	0.27
6	Hydrostatic Strength at 20oC for 100 hours.	Satisfactory	Satisfactory	Satisfactory	Satisfactory	Satisfactory	Satisfactory	Satisfactory	Satisfactory
7	Longitudinal Reversion test at 110°C (%)	-2.5	-2.5	-2.0	-1.5	-2.0	-1.5	-1.5	-1.0
8	Elongation at break (%)	634	675	615	550	645	570	550	585
9	Marking.	Present	Present	Present	Present	Present	Present	Present	Present

End of Test Report

Assistant Director (Physical)



(Masood Ahmed Khan)
 Director QCC (North)
 Lahore (0337)



TEST REPORTS OF OUR PRODUCTS



GOVERNMENT OF PAKISTAN
 MINISTRY OF SCIENCE AND TECHNOLOGY
 PAKISTAN STANDARDS & QUALITY CONTROL AUTHORITY
QUALITY CONTROL CENTRE
 234-Pitac Compound, Ferozpur Road, Lahore. 042-99230617-18



S.No. 0338

TEST REPORT

Your Ref. No. SDC-CA(L-2186/2020)
 Dated:- 08-07-2020

Our Ref.No.QCC/4(360)/20-21 (1754)
 Dated:- 27.8.20

Sample received from: The Field Officer/Inspector,
 Report issue to: SDC-CA Central,
LAHORE.

No. of Samples: Five (05).
 Specification against which tested.
 PS: 3580-2014 / ISO 4427

Subject :- Testing of samples stated to be HDPE Pipes "Turk Plast Brand"
(Collected from M/s: Alif Industry SMC (Pvt.) Ltd., 4 KM Manga Raiwind Road, Raiwind).

The samples as received have been tested with the following results:-

S. No.	Name of the tests.	Test Results Corresponding to Lab. Registration Nos.				
		PE/127 (140mm)	PE/128 (160mm)	PE/129 (180mm)	PE/130 (250mm)	PE/131 (315mm)
1	Classification of Material.	PN-08	PN-10	PN-10	PN-10	PN-08
2	Colour of Pipe.	Black	Black	Black	Black	Black
3	Mean Outside Dia (mm).	140.5	160.8	180.8	251.2	316.2
4	Wall Thickness(mm)	Min.	9.7	10.9	14.8	15.2
		Max.	7.4	10.3	11.5	16.2
5	Melt Flow Rate at 190°C/5 Kg. (MFR-p/10 Minutes).	0.28	0.30	0.27	0.26	0.28
6	Hydrostatic Strength at 200C for 100 hours.	Satisfactory	Satisfactory	Satisfactory	Satisfactory	Satisfactory
7	Longitudinal Reversion test at 110°C (%)	-2.5	-1.5	-1.0	-0.8	-1.0
8	Elongation at break (%)	605	525	475	500	450
9	Marking	Present	Present	Present	Present	Present

End of Test Report

Assistant Director (Physical)

(Masood Ahmed Khan)
 Director QCC (North)
 Lahore (0338)

TEST REPORTS OF OUR PRODUCTS



GOVERNMENT OF PAKISTAN
MINISTRY OF SCIENCE AND TECHNOLOGY
PAKISTAN STANDARDS & QUALITY CONTROL AUTHORITY
QUALITY CONTROL CENTRE



234-A, Ferozpur Road, Near Canal Bridge, Lahore-54600. Ph: (042) 99230617-18, Fax: (042) 99231089

TEST REPORT

Your Ref. No. Endst: 285/MII
Dated:-09-05-2020

Our Ref. No. QCC/4(362)/20-21 (1354)
Dated:- 15.7.20

Sample Received from Sub Divisional Officer,
Report issue to Public Health Engg:
Sub Divisional-II,
MIANWALI.

No. of Samples: - Two (02)
Specification against which tested
As per Test Request

Subject:- Testing of samples stated to be "UPVC Pipe
Water Supply Scheme Dhoke Zaman.

The above samples as received have been tested with the following test results:-

S. No.	Name of the Test	Results Corresponding to Labs. Registration No. & Identification.	
		PE/1811 3"	PE/1812 4"
1	Specific Gravity.	1.46	1.44
2	Short Term Hydrostatic Pressure Test.	Satisfactory	Satisfactory
3	Longitudinal Reversion Test at 150°C (%)	-3.0	-3.0

End of Test Report

ASSISTANT DIRECTOR (PHYSICAL)

(MASOOD AHMAD KHAN)
DIRECTOR Q.C.C (NORTH)
LAHORE (2730)

TEST REPORTS OF OUR PRODUCTS



GOVERNMENT OF PAKISTAN
 MINISTRY OF SCIENCE AND TECHNOLOGY
 PAKISTAN STANDARDS & QUALITY CONTROL AUTHORITY
QUALITY CONTROL CENTRE
 234-A, Ferozpur Road, Near Canal Bridge, Lahore-54600. Ph: (042) 99230617-18, Fax: (042) 99231089



TEST REPORT

Your Ref. No. 290/MI II
 Dated:- 09-05-2020

Our Ref. No. QCC/4(362)/20-21 (1355)
 Dated:- 15.7.20

Sample Received from
 Report issue to

Sub Divisional Officer,
 Public Health Engg:
 Sub Divisional-II,
MIANWALI.

No. of Samples: - Three (03)
 Specification against which tested
 As per Test Request

Subject:- Testing of samples stated to be "UPVC Pipe" B-Class (For Rehabilitation Rural Water Supply Scheme Ban Hafiz Jee.

The above samples as received have been tested with the following test results:-

S. No.	Name of the Test.	Results Corresponding to Labs. Registration No. & Identification.		
		PE/1813 3"	PE/1814 4"	PE/1815 6"
1	Specific Gravity.	1.46	1.45	1.45
2	Short Term Hydrostatic Pressure Test.	Satisfactory	Satisfactory	Satisfactory
3	Longitudinal Reversion Test at 150°C (%)	-3.5	-2.5	-3.0

End of Test Report

ASSISTANT DIRECTOR (PHYSICAL)

(MASOOD AHMAD KHAN)
 DIRECTOR Q.C.C (NORTH)
 LAHORE (2731)

TEST REPORTS OF OUR PRODUCTS



GOVERNMENT OF PAKISTAN
 MINISTRY OF SCIENCE AND TECHNOLOGY
 PAKISTAN STANDARDS & QUALITY CONTROL AUTHORITY
QUALITY CONTROL CENTRE



234-A, Ferozepur Road, Near Canal Bridge, Lahore-54600. Ph: (042) 99230617-18, Fax: (042) 99231089

TEST REPORT

Your Ref. No. 288/M1 II
 Dated:- 09-05-2020

Sample Received from
 Report issue to

Sub Divisional Officer,
 Public Health Engg;
 Sub Divisional-II,
MIANWALI.

Our Ref. No. QCC/4(362)/20-21 (1356)
 Dated:- 15.7.2020

No. of Samples: - Three (03)
 Specification against which tested
 As per Test Request

Subject:- Testing of samples stated to be "UPVC Pipe" B-Class (For Rehabilitation Rural Water Supply Scheme Dhiba Karsiyal).

The above samples as received have been tested with the following test results:-

S. No.	Name of the Test.	Results Corresponding to Labs. Registration No. & Identification.		
		PE/1816 3"	PE/1817 4"	PE/1818 6"
1	Specific Gravity.	1.45	1.44	1.45
2	Short Term Hydrostatic Pressure Test.	Satisfactory	Satisfactory	Satisfactory
3	Longitudinal Reversion Test at 150°C (%)	-3.5	-3.2	-2.7

End of Test Report

ASSISTANT DIRECTOR (PHYSICAL)

(MASOOD AHMAD KHAN)
 DIRECTOR Q.C.C (NORTH)
 LAHORE (2732)

TEST REPORTS OF OUR PRODUCTS



GOVERNMENT OF PAKISTAN
 MINISTRY OF SCIENCE AND TECHNOLOGY
 PAKISTAN STANDARDS & QUALITY CONTROL AUTHORITY
QUALITY CONTROL CENTRE



234-A, Ferozepur Road, Near Canal Bridge, Lahore-54600. Ph: (042) 99230617-18, Fax: (042) 99231089

TEST REPORT

S. No. 007577

Your Ref. No. DB-78/DAR/RE/ME/2020/2019
 Dated:- 19-05-2020.

Our Ref. No. QCC/4(362)/19-20 (1170)
 Dated:- 16.6.2020

Sample Received from: Abdullah Muhammad Khadim,
 Report issue to: Resident Engineer,
 M/S. DAR Engineering.
 PO Box No. 87236.
RIYADH.

No. of Sample: One (01).
 Specification against which tested:
 PS. 3051-91 B.S.3505

Subject: - Testing of sample stated to be "UPVC PIPES" 18" "D Class" for Punjab Agriculture Food and Drug Authority's Science Enclave, Lahore, Pakistan.

The above sample as received has been tested with the following test results:-

S. No.	Name of the Test.	Results Corresponding to Labs. Registration No. & Identification.
		PE/1808 18"
1	Classification of Pipe.	D
2	<u>Mean Outside Dia (mm).</u>	
	Min	456.8
3	<u>Wall Thickness (mm).</u>	
	Min	21.7
4	Specific Gravity.	1.46
	Max	22.5
5	Short Term Hydrostatic Pressure Test.	Satisfactory
6	Impact Resistance Test.	Pass
7	Longitudinal Reversion Test at 150oC (%).	-0.3
8	Resistance to Delamination at 150oC	No Crack Observed
9	Fracture Toughness Test	Not Broke /Crack

End of Test Report

ASSISTANT DIRECTOR (PHYSICAL)

(MASOOD AHMAD KHAN)
 DIRECTOR Q.C.C (NORTH)
 LAHORE (2517)

TEST REPORTS OF OUR PRODUCTS



GOVERNMENT OF PAKISTAN
 MINISTRY OF SCIENCE AND TECHNOLOGY
 PAKISTAN STANDARDS & QUALITY CONTROL AUTHORITY
QUALITY CONTROL CENTRE



234-A, Ferozpur Road, Near Canal Bridge, Lahore-54600. Ph: (042) 99230617-18, Fax: (042) 99231089

TEST REPORT

Your Ref. No. SDC-CA(L-1510)/2020
 Dated:- 10-01-2020

Our Ref.No.QCC/4(362)/19-20 (554)
 Dated:- 02.3.2020

Sample received from: The Inspecting Officer,
 Report issue to: SDC-CA, Lahore Zone,
LAHORE.

No. of samples: Seven (07).
 Specification against which tested.
 PS: 3051-17 ®

Subject: Testing of samples stated to be UPVC Pipes "Turk Plast Brand"
(Collected from M/S. Alif Plastic Industry, SMC (Pvt) Raiwind Road,
Lahore).

The samples as received have been tested with the following results:

S. No.	NAME OF THE TESTS	Results Corresponding to Lab. Reg. Nos. & identification Marks.						
		PE/1374 (2")	PE/1375 (3")	PE/1376 (4")	PE/1377 (6")	PE/1378 (8")	PE/1379 (10")	PE/1380 (12")
1	Classification of pipe	D	B	B	B	B	B	B
2	Colour of pipe	Grey	Grey	Grey	Grey	Grey	Grey	Grey
3	Superficial Appearance	Surface Free From Defects						
4	Mean Outside Dia(mm)							
	Min.	60.2	88.8	114.2	168.1	218.9	272.9	323.6
	Max.	60.4	89.0	114.5	168.4	219.2	273.3	324.2
5	Wall Thickness(mm)							
	Min.	3.3	3.0	3.5	4.5	5.4	6.8	8.0
	Max.	3.6	3.3	3.8	5.0	6.0	7.4	8.8
6	Specific Gravity	1.46	1.46	1.44	1.45	1.44	1.45	1.44
7	Opacity test (%)	0.05	0.06	0.04	0.04	0.03	0.02	0.01
8	Short Term Hydrostatic Pressure test	No Failure Observed						
9	Impact Resistance test.	Pass	Pass	Pass	Pass	Pass	Pass	Pass
10	Longitudinal Reversion test at 150°C (%)	-3.5	-3.0	-2.0	-2.5	-2.5	-2.0	-1.5
11	Resistance to Delamination at 150°C	No Crack Observed						
12	Fracture Toughness test.	N.A.	Not Broke /Crack					
13	Marking	Present	Present	Present	Present	Present	Present	Present

End of Test Report.

ASSISTANT DIRECTOR (Physical)

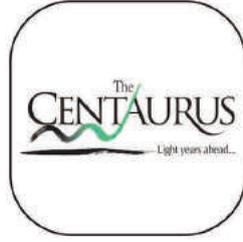
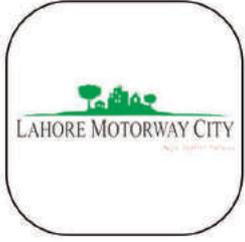
(Masood Ahmed Khan)
 Director QCC (North)
 Lahore (1619)

4/3/2020

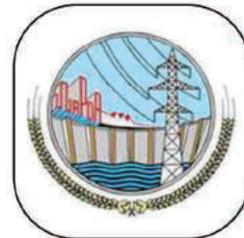
OUR HAPPY *Clients!*



OUR HAPPY *Clients!*



OUR HAPPY *Clients!*



TurkPlast

 www.alifindustry.com  [/turkplastofficial](https://www.facebook.com/turkplastofficial)  [/turkplast.official](https://www.instagram.com/turkplast.official)

 4-KM, Manga Raiwind Road, Lahore

