



SANGIR PLASTICS P. LTD

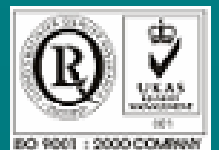
Polyethylene for Dredging Applications



Corp. Off: Sangir House, 366/2933, Motilal Nagar No 2, Mumbai 400090, India
Website: www.sangir.in ; www.pvdf.in sangir@vsnl.com; info@sangir.in

T: +91-22-28724023/6120
F: +91-22-28741794

Performance. Persistence. Partnership.



YOUR PARTNER FOR SUCCESS.



MUTLIPLE SOLUTIONS
UNDER ONE ROOF

SANGIR PLASTICS PVT LTD. is a manufacturer of industrial piping systems and specialized plastic products, based in Mumbai, India. An ISO 9001:2000 Certified Company, **Sangir** has been in the plastics industry for over 25 years and occupies place in the industry as premium quality manufacturer of advanced plastics products.

Sangir has multiple manufacturing locations within India at Vapi, Gujarat & near Jaipur, Rajasthan spanning on a total area of over 200000 sq ft.

Primary products include:

Pipes and Fittings:

- Polyethylene (PE) per ISO 4427, DIN 8074.
- Polypropylene (PPH) per Din 8077.
- PP Fire Retardant (PPFR).
- PP Glass Lined (PPGL).
- Kynar ® PolyVinylidene Fluoride (PVDF).
- High Impact PolyStyrene (HIPS).

Specialized Solutions:

- Dredging Pipes, Floaters & Belts.
- Custom Fabricated PE/PP components.
- Cable Ducting.
- Offshore Marine Applications.

Products are exported to over 10 different countries in 3 continents. Products are widely used in diverse applications handling a range of fluids & gases at temperature between -40°C to 140°C.

Focus on **Understanding & Managing** Customer needs.

Advising Customers for the right and cost effective solutions. We enable the best and latest solutions - within your budgets, within your schedule, exceeding your expectations and partnering till project completion.

*- Quality is a race
where the finish is only
the beginning.*





BUILT TO PERFORM
BUILT TO LAST.

Solutions for the Dredging Industry:

Sangir provides flexible solutions in Polyethylene (PE) for bringing the slurry from the dredger to the shore. A range of sizes is available between 32mm to 630mm Outer Diameter – pressure ratings 2.5 to 16 kg/cm².

Polyethylene as a material of choice:

Polyethylene is the best known volume plastic a relatively high molecular form. The polyethylene we manufacture has been effectively stabilized with carbon against UV radiation effects. The stabilization also serves to counteract heat fatigue, thus increasing life. Advantages of PE pipes & fittings:

- Low weight
- Low pipe friction losses
- Resistant to low temp.
- Good chemical resistance
- Smooth surface
- Resistance to aggressive media
- Outstanding flexibility
- Quick Installation
- Good Weldability
- Smooth surface
- Low electrical conductivity



POLYETHYLENE IS WIDELY USED
ACROSS THE WORLD
IN DREDGING.

GOOD CHEMICAL RESISTANCE TO SEA WATER

HIGH ABRASION RESISTANCE

WEATHERING RESISTANCE

Excellent service life



**HIGH IMPACT
STRENGTH**



TECHNICAL SPECS OF POLYETHYLENE

SANGIR POLYETHYLENE PIPES
ENGINEERED TO BE TOUGH.

PROPERTIES	UNIT	Values
Density at 27°C	g/cm ³	0.958
Melt flow index MFI 190 °C/5kg	g/10 min	0.4 –1.10
Tensile strength at 27 °C	Mpa	>19min
Elongation at Break Point at 27 °C	%	>600min
Bending creep modulus	N/mm ²	800
Coefficient of linear expansion	mm/m°C	0.2

PE is available in three grades:

PE 63

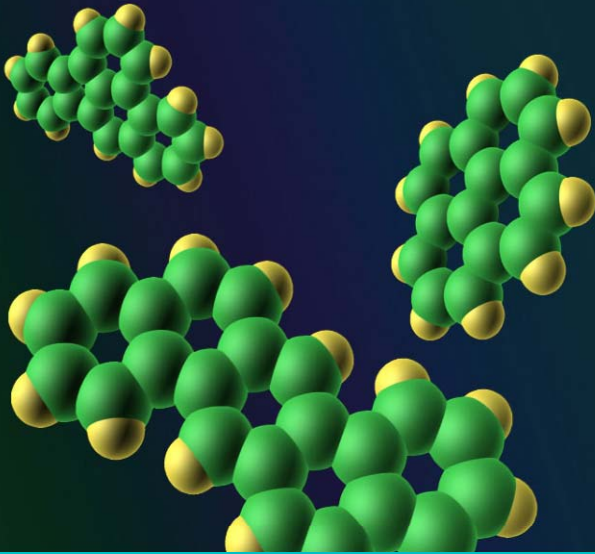
PE 80

PE 100

These are classified based on **the MRS Strength** of each grade. PE100 is considered as the strongest of all PE grades for piping and therefore PE100 pipes have maximum nominal bore for the same pressure ratings for PE 80/63. **Sangir** manufacturers its pipes from all different grades based on customer requirements.

Pipes are made in following standards per international norms:

- ✓ ISO 4427
- ✓ DIN 8074
- ✓ EN 12204
- ✓ IS 4984
- ✓ IS 14151
- ✓ IS 14333



- DON'T CRACK
UNDER PRESSURE



PE PIPING



Pipes coupled with MS Flanges and pipeends on both sides.

PRECISION.
CAPABILITY.
TECHNIQUE.

Size		Internal Bore					
ISO 4427		PE 100			PE 80		
OD(mm)	Inches	PN 6	PN 8	PN 10	PN 6	PN 8	PN 10
200	8"	184	180	175	180	175	169
225	8"	207	202	197	202	197	190
250	10"	230	225	219	225	219	211
280	10"	257	252	245	252	245	237
315	12"	289	283	276	283	276	266
355	14"	326	319	310	319	310	300
400	16"	368	360	350	360	350	338
450	18"	414	405	394	405	394	380
500	20"	460	450	437	450	437	423
560	22"	515	504	490	504	490	473
630	24"	579	567	551	567	551	533
710	26"	653	639	621	639	621	



Size		Internal Bore					
IS 4984:95		PE 100			PE 80		
OD(mm)	Inches	PN 6	PN 8	PN 10	PN 6	PN 8	PN 10
200	8"	181	175	169	176	169	162
225	8"	203	196	190	198	190	182
250	10"	226	218	211	220	211	202
280	10"	253	245	237	246	236	226
315	12"	285	275	266	277	266	255
355	14"	321	310	300	313	300	287
400	16"	361	348	336	351	336	322
450	18"	406	392	379	395	378	362
500	20"	451	436	421	439	420	402
560	22"	505	488	471	492	471	
630	24"	568	549		553		
710	26"	640	619		623		

FITS WELL.

Pipes are manufactured per customer specifications based on their pressure requirements, abrasion resistance requirement, scheme of operation, location of pipe installation.

We assist in offshore marine layouts and onshore laying of pipes. Our service teams are among the best in the country and use superior equipment to construct that perfect joint.



ANALYZE.
PLAN.
EXECUTE.
IMPROVE.

PE FLOATERS



TECHNICAL SPECIFICATIONS FOR FLOATERS

Size		Filler Options	
		Poly Urethane	Expanded Polystyrene
OD(mm)	Inches	30 kg/m ³	16 kg/m ³
200	8"	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
225	8"	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
250	10"	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
280	10"	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
315	12"	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
355	14"	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
400	16"	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
450	18"	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
500	20"	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
560	22"	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
630	24"	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
710	26"	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

PE Floaters are used to keep the pipeline afloat on the sea waters. The floaters are placed adjacent to the PE pipes on either sides and the placement is secured with the help of belts that run across the circumference of the two floaters and the sandwiched pipe. Based on buoyancy requirements the floaters can be filled with low density materials like Polyurethane (PU) or Expanded Poly Styrene (EPS) popularly known as thermocol. Both these fillings can be easily accomplished at Sangir manufacturing units. Floaters are end capped on both sides after filling the above materials and are made water tight for best performance. Floaters are also available without the filling for areas where buoyancy is achieved by other methods or not required.



JOINTING TECHNOLOGY:

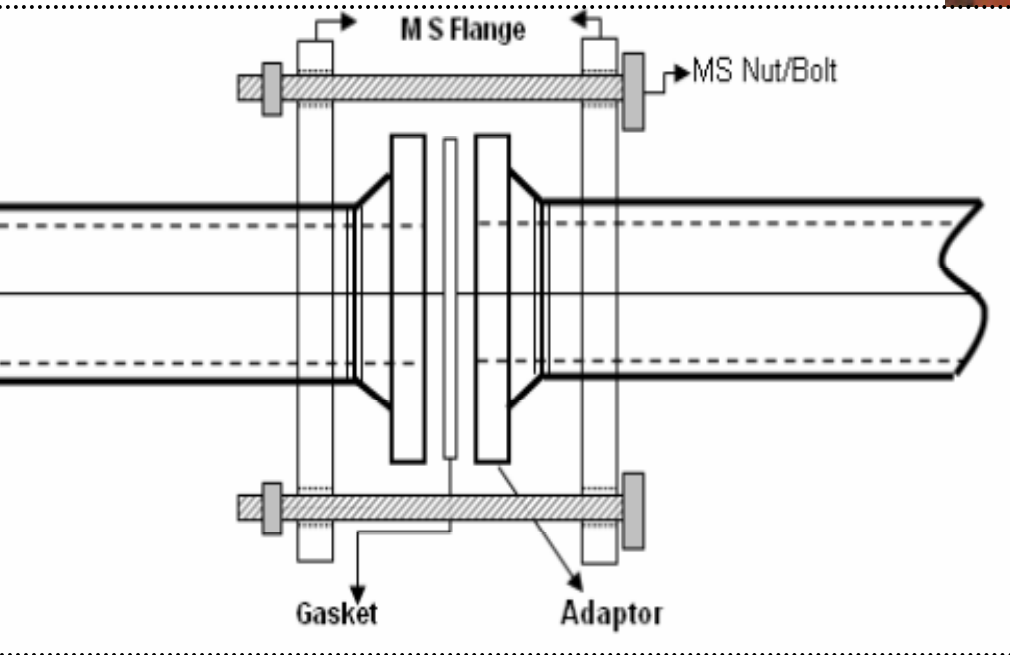
PE Pipes have the flexibility to be connected by different methods for dredging applications, depending specifically on requirement:

- Butt Welding
- Flange End connections

Straight Butt welding involves heat induced adhesion of the PE pipe with each other or with various types of fittings. Flange connection ends provide a superior solution where the pipes can be easily jointed with nuts & bolts and then dismantled and moved to the next location after project completion.

Sangir provides flange end pipes pre-fabricated at its manufacturing facilities. This saves installation cost and time. Also, repair of damaged pipes is fairly quick and simple. Flange connections enable 90 deg turns, branching lines and hose connections very well.

WORKING FOR YOU.
WORKING WITH YOU.



“The sea was really rough and the gusts overthrew most things in the way. The PE pipes stayed true to your words – just kapput- Outstanding!” – Visweshwara Rao, Shell Port Project



SOLUTIONS IN:

. POLYETHYLENE .

. POLYPROPYLENE .

. POLYSTYRENE .

. POLYVINYLIDENE FLOURIDE .

. POLYVINYLIDENE FLOURIDE .

. PP FIRE RETARDANT .

. PP HOMOPOLYMER .



SANGIR PLASTICS P. LTD
An ISO 9001:2000 Company

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☞ sangir@vsnl.com; info@sangir.in

T: +91-22-28724023/6120

F: +91-22-28741794

Factory Site:

A-1/2212 & 2213, Phase III, G I D C, Vapi , Gujarat – 396195, India

☞ sangir9001@gmail.com

T: +91-260-2430238

F: +91-260-2420310



Website: www.sangir.in ; www.pvdf.in