

## IP-4 DUCT SYSTEM

DS 280 E 0012



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Technical Data

**Duct System for corrosion protection of grouted post-tensioning tendons made from PP or HDPE polyolefin material.**

**Kind of Duct** Thick wall corrugated duct with intermittent circular corrugation for improved corrosion protection of bonded post-tensioning tendons

**Norm** Design and Material comply to fib 'technical report bulletin 7' recommendations, PTI, FDOT

**Materials**

- Duct available in Polypropylen or Polyethylen material depending on project requirements and installation temperatures. HR-PP material for very low bending radii available on request.
- Duct available in different wall thickness acc project requirements

**IP-4 Duct** IP-4 Duct is available in **IP-4 M** for fib compliance and economical **IP-4 S** for lower requirements

### Sizes

IP-4 M		Sizes in mm		
Model	Type	OD	ID	Wall
36/46	round	46	36	2,0
58/74	round	74	58	2,5
76/92	round	92	76	2,5
85/99	round	99	85	2,5
100/116	round	116	100	3,0
115/131	round	131	115	3,0
130/146	round	146	130	3,0
140/157	round	157	140	3,0
72/21	flat	73	22	2,0
90/22	flat	90	23	2,0

IP-4 S		Sizes in mm		
Model	Type	OD	ID	Wall
58/74	round	74	58	2,0
76/92	round	92	76	2,0
85/99	round	99	85	2,0
100/116	round	116	100	2,5
115/131	round	131	115	2,5
130/146	round	146	130	2,5
140/157	round	157	140	2,5
72/21	flat	73	23	1,5
92/21	flat	90	24	1,5

**Duct Length** All sizes available in straight length standard 11,5 or 5,8 m. Other straight length on request.

**Material Properties** Polypropylen acc ASTM D 4101 PP 0340 B 44544 with density of 0,905 g/cm<sup>3</sup> at 23°C  
Polyethylen acc ASTM D 3350 PE 345444 E with density of >0,94 g/cm<sup>3</sup> at 23°C

**Colors** PP black, grey or white, HDPE black or white

**Product Properties** Ducts have been successful tested acc fib 7 recommendations for following acceptance criteria: Flexural Behaviour, Duct Flexibility, Lateral Load Resistance, Longitudinal Load Resistance, Leak Tightness, Bond Behaviour, Friction Parameter, Wear Resistance for minimum rest-wall thickness of 1,5 mm after stressing. Minimum radii of curvature depend on pipe size and number of strands, see our TI 280-10.

**Joining**

- Butt welding
- PF coupler (additional Heat Shrink sleeve) if requested
- PFS coupler including integrated sealing for 0.3 bar pressure tightness
- SB coupler for segmental bridge connections

**Fittings** Port vents, Vent pipes, Valves, End caps, Shrink pipe couplers, Shrink sleeve couplers  
PF coupler, PFS coupler with integrated sealing, Segmental Bridge Coupler

**Grout Port Welding** PESTEC Grout Ports weldable directly to the duct in economic, easy, professional, safe and pressure tight way using our special welding equipment.

**Butt Welding Equipment** Our small IP 4 Butt Welding Equipment is optimized for professional field welding of IP 4 ducts.

**Contact us for more details.**

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