

ProRox PS 960 with WR Tech

ProRox PS 960 is a mandrel wound pipe section. The insulation sections are made out of stone wool and are produced with an innovative water repellent binder called WR-Tech to mitigate the risk of corrosion under insulation.

Pipe section



*Wheelmark is only applicable upon request.

Dimensions

Length: 1000 mm

Nominal pipe size (NPS) inches	Internal diameter pipe insulation (ASTM C585-10) mm
½	22
¾	27
1	34
1 ¼	43
1 ½	49
2	61
2 ½	74
3	90
3 ½	102
4	115
4 ½	128
5	143
6	170
7	196
8	221
9	246
10	275
11	300
12	326
14	358
16	408.8
18	459.6
20	510.4
22	561.2
24	612

Applications

ProRox PS 960 is a mandrel wound stone wool pipe section. The sections are supplied split and hinged for easy snap-on assembly, and are suitable for the thermal and acoustic insulation of the industrial pipe work.

Compliance

ProRox PS 960 with WR-Tech Pipe Sections comply with the requirements as set by internationally recognized standards like EN 14303, CINI 2.2.03, VDI 2055, ASTM C795, ASTM C547: Grade A for Type I, II, IV.

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Pipe section

Installation guidelines

Assembly

Fit the ProRox PS 960 with WR-Tech closely around the pipe, with the lengthwise (horizontal) joint turned towards the underside. The lengthwise joints must be staggered at an angle of at least 30 degrees to each other. The shell is secured with galvanised binding wire (thickness 0.5mm, at least 3/m). For insulation thickness above 100mm (or temperatures > 250°C) the insulation should be applied in at least two layers. In the case of multi-layer insulation it is recommended that the lengthwise and crosswise joints are staggered ('masonry bond').

Support construction

On pipes where mechanical loading (e.g. strong vibrations) of the insulation is expected and/or the temperature is higher than 300°C, a support structure (spacers) should be constructed. The number of spacers depends on the temperature and the mechanical load. As a guide, the following intermediate distances can be used:

- Horizontal pipe work: 3 to 4m
- Vertical pipe work: 5 to 6m

Finishing

All pipe sections should be finished with a metal (e.g. aluminium) cladding. Where necessary, expansion joints are required to cater for expansion of the pipes. Both the lengthwise and circular joints are fastened with sheet-metal screws: hard aluminium or stainless steel 1/2", 8 per metre. Close expansion joints with a steel tensioning wire. Connections to mountings, head and end caps etc. should be made watertight using an appropriate sealant.

Note

All steel components exposed to a corrosive environment should be cleaned, de-greased and coated with a protective finish.

Advantages

- Innovative water repellent binder called WR-Tech to mitigate the risk of corrosion under insulation
- Excellent fit provides optimal performance
- Easy to handle and to install
- Wide range of diameters and insulation thicknesses
- Suitable for use over stainless steel
- For temperatures up to 350°C, a support construction is not generally necessary

Product properties

Properties	Performance								Standard
Thermal Conductivity ²	Mean Temp (°C)	50	100	150	200	250	300	350	ASTM C335 IS 3346
	λ(W/mK)	0.038	0.044	0.050	0.058	0.068	0.080	0.092	
	λ(W/mK)	0.041	0.046	0.053	0.063	0.075	0.087	-	
Nominal Density	100-125 kg/m ³								ASTM C302/IS 3144
Maximum Use Temperature	650°C								ASTM C447
Sag Resistance	≤ 5% at 650°C								ASTM C411
Heat Resistance	No visible deterioration of fibrous structure. No evidence of self heating. No fusion of fibres at 650°C								IS 3144
Linear Shrinkage	≤ 2 % at 650°C								ASTM C356
Surface Burning Characteristics	Flame spread index = Passed; Smoke developed = Passed								ASTM E84
Reaction to fire	Euroclass A1/Non-combustible								EN 13501-1/ IMO 2010 FTPC
Corrosion resistance	Evaluation on external stress corrosion cracking tendency of austenitic stainless steel = Passed Chemical analysis for Cl ⁻ , F ⁻ , Na ⁺ , SiO ₄ ⁴⁻ : Results fall within acceptability limits of ASTM C795 Trace quantity of water leachable chloride ions: ≤10 ppm								ASTM C692 /ASTM C871 ASTM C795 EN 13468/IS 3144
Water absorption	≤ 0.04 lb/ft ² (≤0.2 kg/m ²) ≤ 0.04 lb/ft ² (≤0.2 kg/m ²) (After 24 hrs. pre-heating at 482°F (250°C))								EN 13472
Vapor sorption/ Moisture Absorption	< 1% Weight								ASTM C1104/C1104M
Sulphur Content	<0.3 Vol %								IS 3144
pH	7-10								IS 3144
Shot Content	>250 microns<8wt% >500 microns<3wt%								IS 3144
Influence on coating systems	Free from substances (e.g. silicone oil) that might impair surface wetting								VW 3.10.7

Note: 1. All information and data for technical parameters are based on laboratory testing.
2. Nominal values.

