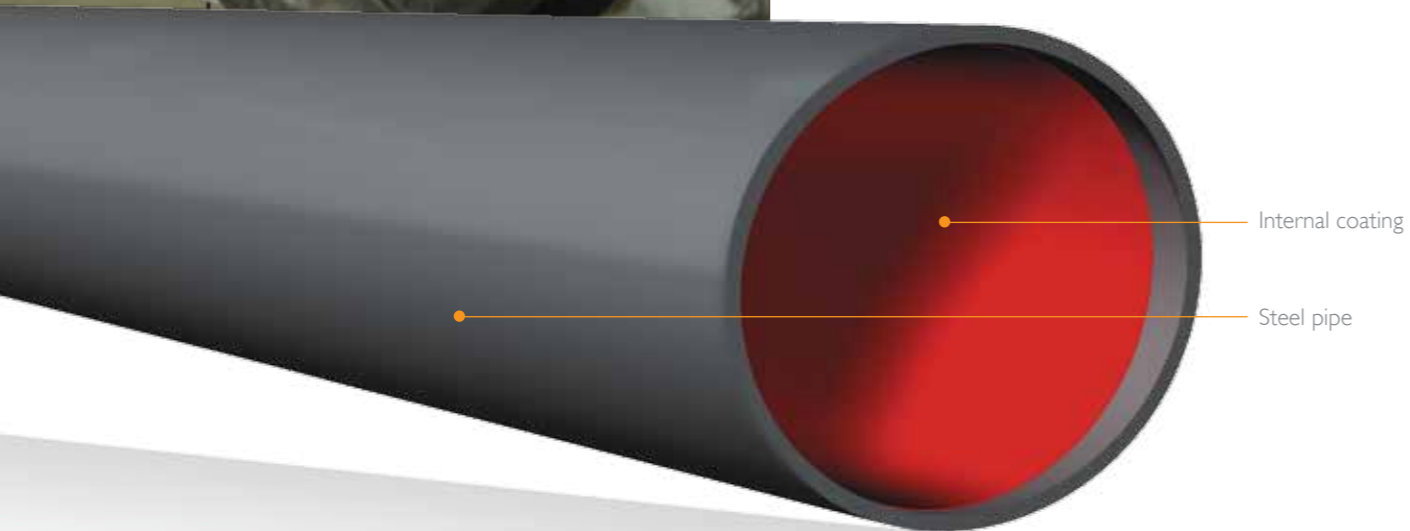




Innerkote®

Internal pipe coating with liquid paint for gas flow.



Innerkote® is a range of liquid paint coatings applied on the pipe inner surface aimed to reduce roughness. In virtue thereof, Innerkote® coatings are applied on gaslines where its smooth finishing enables to reduce the fluid's friction, thus saving energy in compression stations. In this case, Innerkote® usual thickness is of 65 to 100 µm.

Nevertheless, Innerkote® can also be applied in ducts aimed at liquids transportation on condition that an appropriate liquid paint selection is made.

PRODUCTION PROCESS

Once the pipe inner surface is blasted, the liquid paint is applied using "airless" guns in order to obtain a uniform and smooth layer which is cured in a furnace or in open air, depending on the type of paint chosen.

Application processes



Preheating



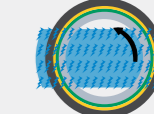
Internal cleaning



Painting



Curing



Holiday detection

Innerkote®

Fusion Bonded Epoxy Coating (FBE - Internal Coating)

TECHNICAL DATA

PHYSICAL PROPERTIES

Typical Properties ¹	Standard ²	Unit	Value ³
Specific Gravity	Liquid Displacement Method	-	≥ 1,35
Colour	-	-	Beige / Red
Glass Transition Temperature Tg ²	CSA Z245.20	°C	≥ 105
Recommended Film Thickness	-	µm	≥ 425 (5)

MECHANICAL PROPERTIES

Adhesion Resistance	AMSS 091	-	Pass
Abrasion Resistance CS17 / 1.000 g wgt / 5.000 cycles	ASTM D 4060	g	0,08 to 0,14
Impact Resistance (coated 3 x 3 x 1/8 inch panel to a thickness of 16 mils)	ASTM G 14 - modified	in.lbs	160 (Pass)
Flexibility @ 25 °C	ASTM G 10 - modified	°/PD	≥ 3
Water Absorption	ASTM D 570-95	%	≤ 1,07
Autoclave Tests High Pressure Caustic (NaOH - pH 13) / 93 °C / 2.500 psig / 24 hs	ASTM D 714	-	Pass (4)
Autoclave Tests High Pressure (Tap Water/Mineral Spirits 1:1) / 93 °C / 2.500 psig / 24 hs	ASTM D 714	-	Pass (4)
Autoclave Tests High Pressure Brine / 93 °C / 2.500 psig / 24 hs	ASTM D 714	-	Pass (4)
Autoclave Tests Brine with 1 % CO ₂ / 1 % H ₂ S / 98 % Propane	ASTM D 714	-	Pass (4)

(1): Typical properties are listed in this document. Please advice if additional properties are requested.

(2): Each test is performed in accordance to internal procedures which are based on the standards listed in this column.

(3): These are nominal values. They have not to be considered as specification limits.

(4): "Pass" means no Adhesion Loss, no Blisters, no Delaminating Change.

(5) Unless other thickness is recommended by epoxy powder manufacturer or customer requirements.

