



Technical Data Sheet

GS SPC-221 Compound

Description:

GS SPC-221 is a black high-density polyethylene compound designed for 3-layer anti-corrosion coating applications, especially for steel pipes coatings for exploration and long-distance transport of gas, oil, chemical, and water systems. It shows good mechanical and heat deformation properties as well as ESCR resistance and contains very well dispersed, fine carbon black particle to ensure excellent weathering resistance. The GS SPC-221 product can be applied for operating temperature from -45 to +80 °C.

General:

Appearance: Black Granules

Application: 3 Layer Steel Pipe Coatings

Processing Method: Extrusion

Packaging: 25 Kg Sack or 1 Ton Jumbo Bag

Properties:

Parameter	Test Method	Unit	Result
Density	ISO 1183	g/cm ³	0.945
Melt Flow Index (190 °C/2.16kg)	ISO 1133	g/10 min	0.55
Carbon Black Content	ASTM D1603	%	2.3
Carbon Black Dispersion	ISO 18553	-	2.5
Yield strength	ISO 527	MPa	23
Elongation at Break	ISO 527	%	850
Hardness	ISO 868	Shore D	60
Vicat Softening Temperature	ISO 306	°C	122
Melting Point	ISO 11357	°C	135
Oxidation Induction Time	ISO 11357	min	>45
Moisture Content	ISO 15512	%	0.01
ESCR	ASTM D1693	hrs	>5000

Extrusion:

Extrusion							
Zone	1	2	3	4	5	Head	Die
Temperature (°C)	160	170	180	190	200	210	210

Notes:

- ❖ Test results have been obtained with laboratory equipment. Change the test devise may give different results outside of the standard.
- ❖ The customers are advised to check the product quality before commercial use.
- ❖ The compound should be stored in the original container securely under cool and dry conditions away from direct sunlight, heat and contamination.
- ❖ Shelf life at proper storage is about 36 months from the production date, but it is recommended to consume the compound within 18 months.