Moharamplast HDPE MP-COAT 5205

High Density Polyethylene

Moharamplast S.A.E

Message:

A black high density polyethylene compound containing >2% well dispersed carbon black class A1 to ensure outstanding weather resistance, the added carbon black type is less sensitive to moisture despite the hygroscopic behavior due to its fine particle size.Antioxidants, processing aids and other additives are added to obtain excellent long term properties and a better processability ensuring protection against extreme external conditions, mechanical impacts and degradation by heat or UV irradiation. MP-COAT 5205 can be used up to 85°C service temperature of the pipeline when combined with the grafted adhesives.

Safety

MP-COAT 5205 is classified as no-dangerous material.

We advise you to follow our safety guidelines and recommendations in our Material Safety Data Sheet.

Typical Applications

MP COAT-5205 is designed for use in (3LPE) steel pipe coating systems, suited for high temperature pipeline applications in conjunction with an epoxy primer and a polyolefin adhesive so mainly used for coating steel pipes in oil and gas applications and thus help in minimizing the potential for corrosion of underground steel pipes.

Specifications

MP-COAT 5205 fulfills the requirements of ISO 21809-1, DIN 30 670-S AND DNV-RP-F106 standards when the product is processed using the correct extrusion practice and testing procedures.

General Information	
Additive	Processing aid Antioxidation
Features	High density Antioxidation Impact resistance, good Workability, good Good weather resistance Heat resistance, high
Uses	Pipeline coating Coating application
Agency Ratings	DIN 30670 ISO 21809-1
Appearance	Black
Forms	Particle
Processing Method	Extrusion Extrusion coating

Physical	Nominal Value	Unit	Test Method
Specific Gravity [1]	0.952	g/cm³	ASTM D792
Melt Mass-Flow Rate (MFR)			ASTM D1238

190°C/2.16 kg	0.50	g/10 min	ASTM D1238
190°C/5.0 kg	2.0	g/10 min	ASTM D1238
Environmental Stress-Cracking Resistance (10% Igepal, F20)	> 1000	hr	ASTM D1693
Carbon Black Content	> 2.0	%	ASTM D1603
Carbon Black Dispersion	A1		ISO 11420
Head Temperature	200 - 210	°C	
Hardness	**Nominal Value**	**Unit**	**Test Method**
Durometer Hardness (Shore D)	> 56		ASTM D2240
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Strength			ASTM D638
Yield	> 18.6	MPa	ASTM D638
Fracture	> 21.6	MPa	ASTM D638
Tensile Elongation (Break)	> 800	%	ASTM D638
Thermal	**Nominal Value**	**Unit**	**Test Method**
Brittleness Temperature	< -60.0	°C	ASTM D746
Vicat Softening Temperature	> 120	°C	ASTM D1525
Melting Temperature	129	°C	ASTM D2117
Electrical	**Nominal Value**	**Unit**	**Test Method**
Volume Resistivity	1.0E+16	ohms·cm	ASTM D257
Extrusion	**Nominal Value**	**Unit**	
Drying Temperature	< 90.0	°C	
Cylinder Zone 1 Temp.	190 - 210	°C	
Cylinder Zone 2 Temp.	190 - 210	°C	
Cylinder Zone 3 Temp.	190 - 210	°C	
Cylinder Zone 4 Temp.	190 - 210	°C	
Cylinder Zone 5 Temp.	190 - 210	°C	
Melt Temperature	220 - 240	°C	
Die Temperature	200 - 220	°C	

Extrusion instructions

Max recommended melt temperature: < 260 °CDue to hygroscopic behavior of carbon black and such a compound will be sensitive to moisture. Even as low moisture as 0.04% can give the pipe a bad surface . Despite the fact that the type of the carbon black used in MP-COAT 5205 is of less sensitive type, storage for a long time or under unfavorable conditions can increase the moisture content. We therefore recommend drying before extrusion. For normal extrusion conditions and applications we suggest preheating and drying with a maximum preheating temperature of 90°C.

NOTE

1. 23°C

Recommended distributors for this material

Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China