

High density polyethylene

### Steel Pipe Coating Compound

#### Product Description

Addalloy 3406 is Black High Density Polyethylene designed for 3-layer anti-corrosion coating application. This grade has excellent thermal aging resistance. It contains very well dispersed, fine particle size carbon black in order to ensure excellent weathering resistance. Addalloy 3406 contains special type of antioxidant and processing aid. It is intended for design temperature -45 to +80. The Addalloy 3406 meets applicable requirements given below:

-ISO 21809-1                      - DIN 30670

#### General

Features	<ul style="list-style-type: none"> <li>Clean/High Purity</li> <li>High ESCR</li> </ul>	<ul style="list-style-type: none"> <li>Recyclable</li> <li>Good Melt strength</li> </ul>	<ul style="list-style-type: none"> <li>Excellent Process ability</li> </ul>
Uses	<ul style="list-style-type: none"> <li>Coating Applications</li> </ul>		
Appearance	<ul style="list-style-type: none"> <li>Black pellet</li> </ul>		
Form	<ul style="list-style-type: none"> <li>pellets</li> </ul>		
Packaging	<ul style="list-style-type: none"> <li>25 Bags on pallet or 1000kg big bags</li> </ul>		

Physical & Mechanical	Nominal Value	Unit	Test Method
Density ( Base Resin)	>940	kg/m <sup>3</sup>	ISO 1183-Method A
Density ( Compound)	>946	kg/m <sup>3</sup>	ISO 1183-Method A
Melt Mass-Flow Rate (190°C/2.16 kg)	0.4±0.1	g/10 min	ISO 1133
Melt Mass-Flow Rate (190°C/5 kg)	1.6±0.1	g/10 min	ISO 1133
Oxidation Induction Time (210°C)	>60	min	ISO 11357-6
Moisture	<0.05	%	ASTM E1868
Carbon Black Content	2.3±0.2	%	ASTM D 1603
Carbon Black Dispersion	<3	-	ISO 11420
Coating Resistivity	>10 <sup>17</sup>	Ω.cm	ASTM D 257
Tensile Stress (Break)	> 25.0	MPa	ISO 527
Tensile Stress (Yield)	> 16.0	MPa	ISO 527
Tensile Strain (Break)	> 700 %	%	ISO 527
Durometer Hardness (Shore D)	60±2	1s	ISO 868

Thermal	Nominal Value	Unit	Test Method
Vicat Softening Temperature	120 ±2	°C	ISO 306/A50/10N
Brittleness Temperature	<-70	°C	ASTM D746
Melting Temperature (DSC)	130 ±2	°C	ISO 11357-3

Weathering	Nominal Value	Unit	Test Method
Environment Stress Crack Resistance (50°C , Igepal10%, F0)	> 1000	hr	ASTM D1693
Light Ageing(7GJ/m <sup>2</sup> )	ΔMFR≤35	%	Annex G- ISO 21809-1
Thermal Ageing	ΔMFR≤35	%	Annex G- ISO 21809-1

#### Extrusion

As a guide the following temperature profile is recommended:

Zone 1	Zone 2	Zone 3	Zone 4	Head	Die	Melt Temp
190	200	200	210	210	220	220-240

#### Storage & Shelf life

Bags should be stored in dry/closed condition at temperature below 50 °C and protected from UV /direct sunlight. Shelf life at proper storage is at least 18 month from production date, but in case of a long storage time potential moisture pick-up needs to be eliminated by drying before extrusion.

#### Note

- Test results have been achieved in lab condition. Miss handling may give different result and sometimes outside of the standard
- The specifications given are the guidelines only.
- Above compound is suitable to run on different machines; however some adjustments may be required on individual machine.
- The customers are advised to check the quality, prior to commercial use. There is no guarantee and/or warrantee what so ever, after processing

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