



# BLS POLYMERS LTD.

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## BLS POLYMERS LIMITED

## BLS PC 1009 MP

### ADHESIVE PE POLYMER FOR 3 LAYER STEEL PIPE COATING

#### DESCRIPTION

**BLS PC 1009MP** is a maleic anhydride modified composition based on Polyethylene. It is available in powder form and can be processed by spraying and sintering process equipment designed to process polyolefin resin. It has excellent adhesion to HDPE or MDPE and fusion bonded epoxy primer.

The combination **BLS PC 1009 MP** and **BLS PC 5575 P** or **BLS PC 3333 P** fulfills the requirements of NFA 49710, DIN 30670S, CAN/CSA-Z 245.21-M98, Shell DEP 31.30.40.31, ISO 21809-1, EIL 6 - 71 – 0041, Rev 4, IOCL- MECH- COAT -3LPE -027 Rev 3 when used in combination with PE top coats and a compatible fusion bonded epoxy powder under sound processing conditions

#### APPLICATION

**BLS PC 1009 MP** has been designed to develop a reliable bonding strength tie layer between the top coat Polyethylene and the epoxy corrosion protection layer in 3 layer coated steel pipes used for transportation and exploration of natural gas, oil, chemical, liquids, water, etc.

#### PROPERTIES

The main properties of **BLS PC 1009 MP** are as given below:

PROPERTY	TEST METHOD	UNIT	TYPICAL VALUE
MFI (190-2.16 kg)	ASTM D 1238	gm/10min	> 4.5
Density	ASTM D 792	gm/cc	0.932
Tensile Strength at	ASTM D 638	MPa	>10

Yield (50 mm/min)			
Tensile Strength at Break ( 50 mm/min)	ASTM D 638	MPa	18
Elongation at Break	ASTM D 638	%	700
Hardness	ASTM D 2240	Shore D	47
Vicat Softening Temperature	ASTM D 1525	°C	102
Brittleness Temperature	ASTM D 746	°C	-76
Melting Point	ASTM D 3418	°C	123
Peel Strength 3 layer at 23°C	DIN 30670	N/mm	>20
Peel Strength 3 layer at 80°C	DIN 30670	N/mm	>6
Water Content	ASTM D 6980	%	0.05
Flexural Modulus	ASTM D 790	MPa	470

## PROCESSING

**BLS PC 1009 MP** can be processed in any standard polyolefin spray processing equipment.

Processing temperature plays the most vital role in adhesion promotion. We recommend minimum melt temperature of 240 °C for the best results.

The actual coating condition will depend on the type of equipment used.

Melt Temperature	210 - 240°C
PE Melt Temperature	< 255°C
Steel Pipe Temperature	180 -210°C

## PACKAGING

**BLS PC 1009 MP** is available in 25 kg moisture resistant bags, 650 kg Jumbo bags.

## **STORAGE**

**BLS PC 1009 MP** is recommended to be stored in dry condition away from sunlight below 50°C. Improper storage might lead to degradation and irreversible changes in product properties.

Shelf life under proper storage condition is at least 2 years from production date.

We offer our Technical Services for further information and suggestion in using the product from the beginning and also for any need during the course of the product use.

### **Disclaimer:**

The products mentioned herein are not intended for use in medical, pharmaceutical or healthcare applications and we do not support their use for such applications.

To the best of our knowledge the information provided herein is accurate and reliable as on date, and is provided in good faith as reference point with respect to the product described here. .

BLS Polymers makes no warranties which extend beyond the description contained herein.

It is the customer's responsibility to inspect and test our products in order to satisfy itself as to the suitability of the products for the customer's particular purpose. The customer is responsible for the appropriate, safe and legal use, processing and handling of our products.

No liability can be accepted in respect of the use of BLS Polymers products in conjunction with other materials. The information contained herein relates exclusively to our products when not used in conjunction with any third party materials.

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