



## **BASEPOX<sup>®</sup> PE 50-1133 YELLOW VERY HIGH TG FBE/M.L. PRIMER**

Created on 18.09.2003  
Revision 19 of 22.05.2015

### **THERMODYNAMIC CHARACTERISTICS**

Differential Scanning Calorimeter  
According with norm ISO 21809-2 ( clause A.8 ) equivalent to ISO 11357-2

Tg 1 ( powder, inflection point )	58 ± 5° C / 136 ± 9 °F
Tg 2 ( cured film, inflection point )	135 ± 5° C / 275 ± 9 °F
Delta H ( Enthalpy )	117 ± 7 J/g

### **SHELF LIFE**

According with ISO 8130-8 : 6 months at 25°C ( 77° F ) and 65 % relative humidity.  
Lower temperature and humidity are recommended. **Do not exceed 30°C ( 86°F )**.

### **SURFACE PREPARATION**

Surface preparation by abrasive blast cleaning shall, as a minimum, meet the requirements of ISO 8501-1, Sa 2 ½ grade. The blast cleaned surface shall have a roughness RZ between 40 and 110 µm ( 1.6 – 4.4 mils ) as measured in accordance with ISO 4287-1.  
The surface shall be dry and free from contamination.  
Chemical pretreatment is allowed .

### **APPLICATION**

This powder performs best when applied through electrostatic spraying.  
For fluidized bed application special grades are available.

### **RECOMMENDED FILM THICKNESS**

As FBE 350 - 500 µm / 14 - 20 mils  
For special applications film thicknesses of up to 800 µm ( 32 mils ) are possible.

Typical thickness of Basepox<sup>®</sup> PE 50-1133 as primer in multi-layer application is 75 - 200 µm ( 3 - 8 mils ).

### **THEORETICAL YIELD**

590 g / m<sup>2</sup> at 400 µm dry film thickness  
1.70 m<sup>2</sup>/kg at 400 µm dry film thickness  
129 ft<sup>2</sup> / lbs / mil

#### **DIVISIONE VERNICI IN POLVERE**

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### THEORETICAL CURING SCHEDULE

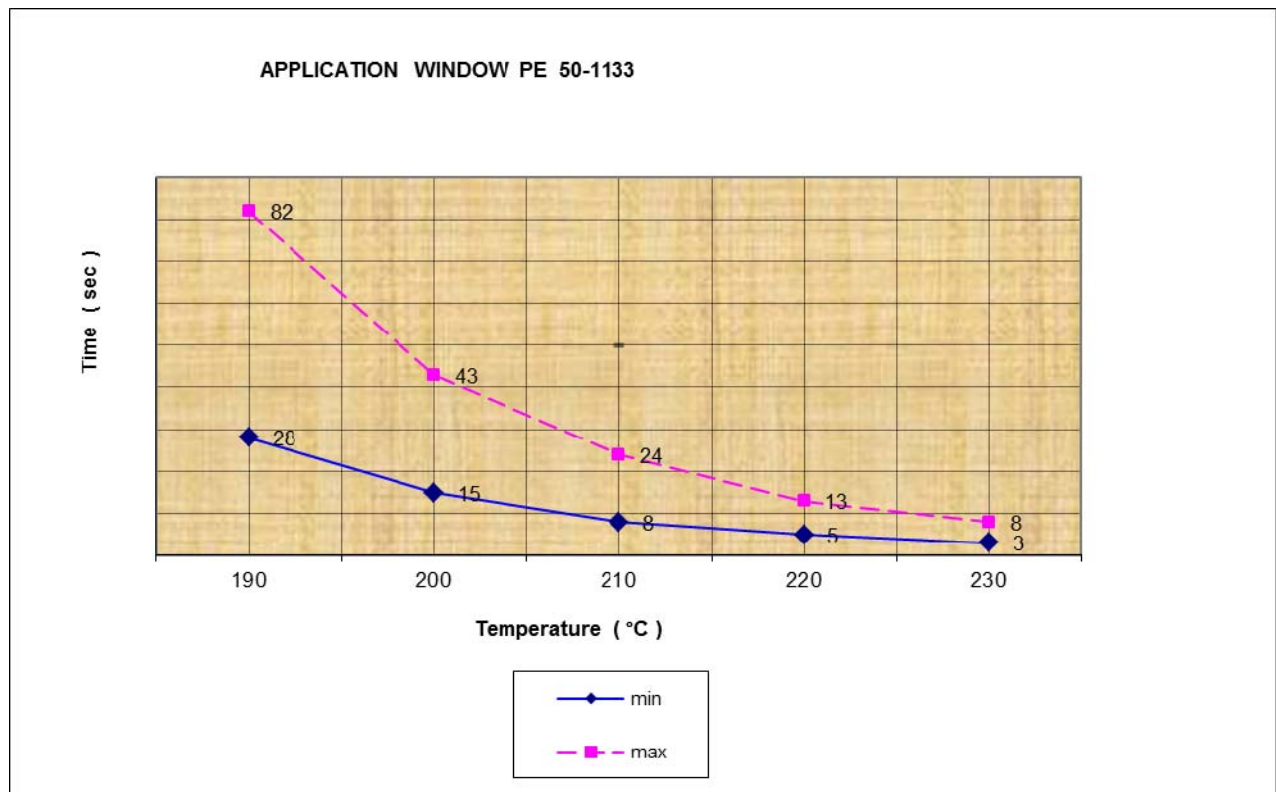
at 232°C ( 450°F )	60 sec.
at 238°C ( 462°F )	50 sec.
at 243°C ( 470°F )	40 sec.

### SINGLE LAYER APPLICATION RECOMMENDED CURING TEMPERATURE

232°C - 243°C / 450 °F - 470°F

### MULTILAYER APPLICATION RECOMMENDED INTERCOATING TIME PRIMER - ADHESIVE

To achieve maximum performance properties the following application window is suggested .



The above figures are provided for guidance only; exact timing should be verified by testing in line .  
 Recommended thickness is 100 - 150 µm ( 4 - 6 mils ) , as per our internal laboratory trials .

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### **PROPERTIES OF CURED FILM ( Typical values )**

#### **FLEXIBILITY**

ISO 21809-2 ( clause A.12 )  
CAN /CSA 245.20-06 ( clause 12.11 )  
BG-CW 6

Pass 2.0° at 0°C ( 32°F )  
Pass 3.0° at -30°C ( -22°F )  
Pass at 23°C ( 73°F ) and - 30°C ( - 22°F )

#### **TENSILE STRENGTH**

ASTM D-2370

> 500 kg / cm<sup>2</sup> ( 7000 psi )

#### **ELONGATION**

ASTM D-2370

> 5 % at 23°C ( 73°F )

#### **IMPACT RESISTANCE**

ISO 21809-2 ( clause A.13 )  
CAN/CSA 245.20-06 ( clause 12.12 )

> 1.5J at -30°C (-22°F)

ASTM G-14 modified

> 18 J ( 160 inch.lbs )

#### **SPECIFIC ELECTRICAL INSULATION RESISTANCE**

DIN 30670

$R_s > 10^9 \text{ Ohm} \cdot \text{m}^2$

#### **ELECTRICAL RESISTANCE**

ASTM D5682

max  $10^8 \text{ Ohm} \cdot \text{m}^2$

#### **DIELECTRICAL RESISTIVITY**

ASTM D149

min 50 V/ $\mu\text{m}$

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### **VOLUME RESISTIVITY**

IEC 60093 > 10<sup>15</sup> Ohm \* cm

### **CATHODIC DISBONDMENT**

ISO 21809-2 ( clause A.9 )  
CAN/CSA 245.20-06 ( clause 12.8 )

20°C ( 68°F ) , 28 days ≤ 5 mm disbonded radius  
65°C ( 149°F ) , 24 hours ≤ 5 mm disbonded radius  
95°C ( 284F ) , 28 days ≤ 20 mm disbonded radius

### **RESISTANCE TO STRAIN POLARIZATION**

28 days , BG CW6 pt. 1 Pass ( No cracking )  
ISO 21809-2 ( clause A.14 )  
CAN/CSA 245.20-06 ( clause 12.13 )

### **SALT SPRAY RESISTANCE**

ISO 7253, 4000 h No blistering , no rust

### **CROSS SECTION POROSITY**

ISO 21809-2 ( clause A.11 ) Fulfills requirements in figure A.10  
CAN/CSA 245.20-06 ( clause 12.10 ) Rating 1 to 4 accepted

### **INTERFACE POROSITY**

ISO 21809-2 ( clause A.11 ) Fulfills requirements in figure A.11  
CAN/CSA 245.20-06 ( clause 12.10 ) Rating 1 to 4 accepted

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### **WATER RESISTANCE TEST**

ASTM D870

No blistering , loss of hardness <10%

### **HOT WATER IMMERSION**

**75°C , 24 hours , tap water**  
ISO 21809-2 ( clause A.15 )  
CAN/CSA 245.20-06 ( clause 12.14 )

Rating 1 to 3 accepted

**75°C , 28 days , tap water**  
ISO 21809-2 ( clause A.15 )  
CAN/CSA 245.20-06 ( clause 12.14 )

Rating 1 to 3 accepted

### **WATER ABSORPTION**

According with TS-C4 GAS-COAT 0 V1.0 Appendix 5.1

**60°C , 28 days , demineralized water**  
**80°C , 28 days , demineralized water**

Weight increase < 2.5 %  
Weight increase < 15 %

### **ABRASION RESISTANCE**

Taber Abraser ASTM D-4060  
CS 17 / 1000 g / 5000 cycles

< 0,2 g

### **BUCHHOLZ HARDNESS**

UNI EN ISO 2815

90 - 100

## **REMARKS**

Basepox<sup>®</sup> PE 50-1133 is also available as  
\_ Basepox<sup>®</sup> PE 50-7133 in grey colour at same reactivity.

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