

BASEPOX® PE 50-1120 YELLOW HIGH TG 3 LAYER PRIMER

Created on 18.09.2003
Revision 17 of 22.05.2015

PRODUCT DESCRIPTION

Epoxy Powder Coating Primer for multi-layer pipe coating systems with good adhesion and resistance against cathodic delamination.

Basepox® PE 50-1120 has preferably to be used in combination with polyolefin coating systems with high operating temperature.

PHYSICAL AND THERMODYNAMIC PROPERTIES

COLOUR

Yellow

DENSITY

1,52 ± 0,05 g/ml

ISO 21809-2 (clause A.7)
CAN CSA Z245.20-06 (clause 12.6)
ISO 8130-2 (helium pycnometer)

SIEVE ANALYSIS

ISO 21809-2 (clause A.6)
CAN CSA Z245.20-06 (clause 12.5)
ISO 8130-1

> 250 µm (60 mesh)	≤ 0.5 %
> 150 µm (100 mesh)	≤ 3.0 %

MOISTURE CONTENT

(Weight loss 2h at 105 °C / 221°F)

≤ 0,5 % acc. ISO 21809-2 (clause A.5)
acc. CAN CSA Z245.20-06 (clause 12.4)
acc. ISO 8130-7

REACTIVITY

GEL TIME @ 180°C / 356°F

53 ± 5 s acc. ISO 8130-6

HOT PLATE GEL @ 205°C / 401°F

22 ± 3 s acc. ISO 21809-2 (clause A.3)
acc. CAN CSA Z245.20-06 (clause 12.2)

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Certificato n.187

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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 / 135 ± 7 °F
Tg 2 (cured film, inflection point)	118 ± 5° C / 244 ± 9 °F
Delta H (Enthalpy)	95 ± 5 J/g

SHELF LIFE

According with ISO 8130-8 : 12 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

Typical thickness of Basepox® PE 50-1120 as primer in multi-layer application is 75 - 200 µm (3 - 8 mils).

THEORETICAL YIELD

106 g /m² at 70 µm dry film thickness
9.40 m²/kg at 70 µm dry film thickness

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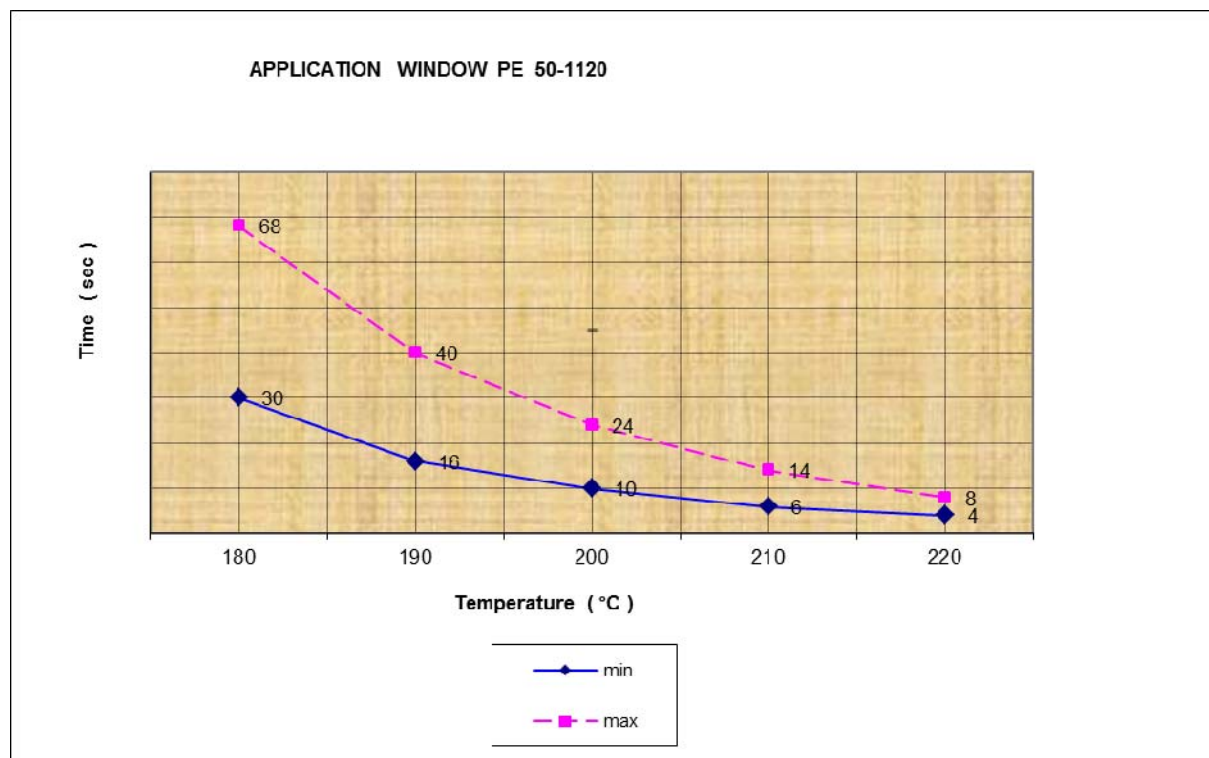
THEORETICAL CURING SCHEDULE

To achieve maximum performance properties the following application window is recommended for Basepox[®] PE 50-1120.

Minimum time before quenching	
at 180°C (356°F)	200 s
at 200°C (392°F)	140 s

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)

IMPACT RESISTANCE

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

> 1.5 J at -30°C (-22°F)

CATHODIC DISBONDMENT

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

20°C (68°F) , 28 days	≤ 8 mm disbonded radius
65°C (149°F) , 24 hours	≤ 6.5 mm disbonded radius
65°C (149°F) , 28 days	≤ 15 mm disbonded radius

RESISTANCE TO STRAIN POLARIZATION

28 days , BG CW6 pt. 1
ISO 21809-2 (clause A.14)
CAN/CSA 245.20-06 (clause 12.13)

Pass (No cracking)

BUCHHOLZ HARDNESS

UNI EN ISO 2815

Min. 91

REMARKS

Basepox® PE 50-1120 is also available as

- Basepox® PE 50-1121 and Basepox® PE 50-1122 , both with lower reactivity and extended gel-time.

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