

BASEPOX® PE 50-1091 YELLOW 3L PRIMER L.C.

Created on 29.06.2011
 Revision 07 of 20.06.2014

PRODUCT DESCRIPTION

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

Basepox® PE 50-1091 has preferably to be used in combination with polyolefin coating systems.

PHYSICAL AND THERMODYNAMIC PROPERTIES

COLOUR

Yellow

DENSITY

1,57 ± 0,05 g/ml

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

SIEVE ANALYSIS

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

< 250 µm (60 mesh)	≤ 0.2 %
< 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	80 ± 10 s	acc. ISO 8130-6
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HOT PLATE GEL @ 205°C / 401°F	30 ± 6 s	acc. ISO 21809-2 (clause A.3)
		acc. CAN CSA Z245.20-06 (clause 12.2)

DIVISIONE VERNICI IN POLVERE

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Certificato n.187

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THERMODYNAMIC CHARACTERISTICS

Differential Scanning Calorimetry (TA Instruments Q10)
According with norm ISO 21809-2 (clause A.8) equivalent to ISO 11357-2

Tg 1 (powder, inflection point)	60 ± 5° C / 135 ± 7 °F
Tg 2 (cured film, inflection point)	100 ± 5° C / 219 ± 5 °F
Delta H (Enthalpy)	42 ± 4 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

Thickness of Basepox[®] PE 50-7791 as primer in multi-layer application is typically
75 - 200 µm (3 - 8 mils).

THEORETICAL YIELD

110 g /m² at 70 µm dry film thickness
9.1 m²/kg at 70 µm dry film thickness
122 ft² / lbs / mil

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THEORETICAL CURING SCHEDULE

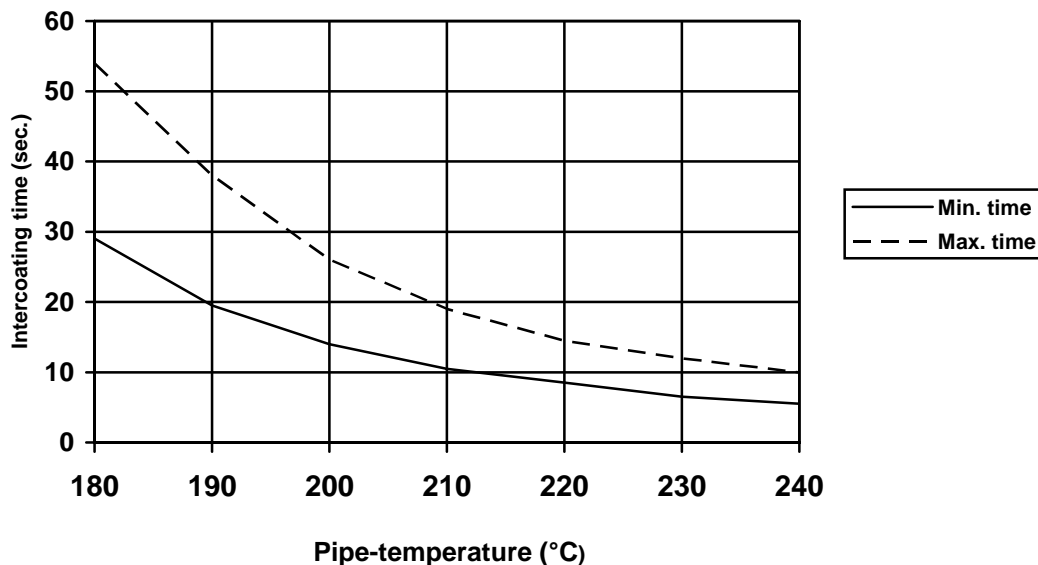
To achieve maximum performance properties the following application window is recommended for Basepox[®] PE 50-1091.

Minimum time before quenching	
at 180°C (356°F)	240 s
at 200°C (392°F)	150 s

MULTILAYER APPLICATION RECOMMENDED INTERCOATING TIME PRIMER - ADHESIVE

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

Application window



The above figures are provided for guidance only. The exact timing should be verified by testing in line.

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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
65°C (149°F) , 24 hours
65°C (149°F) , 28 days

≤ 8 mm disbonded radius
≤ 6.5 mm disbonded radius
≤ 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

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