

# **NP-F 9400LAT LOW APPLICATION TEMPERATURE (LAT) FBE TECHNICAL DATA SHEET**

# **Product Description:**

National Paint's NP-F9400LAT is highly reactive fast gel Fusion Bonded Epoxy Powder designed for Low Application Temperature pipeline coating. It has excellent melt viscosity, flow and wetting of the steel substrate with controlled reactivity at much lower temperature comparing with conventional type of FBE coatings. It is based on specialty Epoxy resins and Hardeners formulated in order to meet external pipe coating specifications

NP-F 9400LAT can be applied in the temperature range 170°C to 200°C up to 500 microns as a standalone anti corrosion coating. Due to low temp requirement and better wetting of the steel surface, it's more recommended and suitable for field joint coatings. When using as primer in three layer system it can be applied at much lower temp range of 160°C to 190°C.

Operating Temperature: NP-F 9400LAT is suitable for operation at continuous temperature up to 100°C in dry conditions and maximum 80°C in wet conditions.

#### **Powder Properties:**

Chemical Type		-:	Fusion Bonded Epoxy
Color		-:	Green/Grey/Red
Cure Time at 204+-3°C at 180+-3°C at 170+-3°C at 160+-3°C	(CSA-Z245.20-14)	-: -: -:	30 seconds 60 seconds 90 seconds 120 seconds
Gel Time at 204°C	(CSA-Z245.20-14)	-:	6 - 8 seconds
Particle Size	(CSA-Z245.20-14)	-:	99.8% below 250 micron
Specific Gravity	(CSA-Z245.20-14)	-:	1.40 +- 0.05
Theoretical Coverage		-:	138 ft <sup>2</sup> /lb/mil (0.715 m <sup>2</sup> /kg/mm)
Moisture Content	(CSA-Z245.20-14)	-:	Below 0.50% (at manufacturing time)
Thermal Characteristics	(CSA-Z245.20-14)	-	Tg1 = 50 - 70°C Tg2 = 104 + -5°C Delta H = 40-75 J/g

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National Paints Factories Co. Ltd.

Tel: +971 6 5130000, Fax: +971 6 5340222

P.O. Box: 5822, Sharjah - U.A.E.

ISO 9001 & 14001 **OHSAS 18001** CERTIFIED FACTORY

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## **Coating Properties:**

Flexibility	(CSA-Z245.20-14)	-:	Pass (No cracking)
	3.0° PPD @ -30C		
Impact resistance	(CSA-Z245.20-14)	-:	> 1.5 J (No Holiday)
Cross Section Porosity	(CSA-Z245.20-14)	-:	Average Rating-1
Interface Porosity	(CSA-Z245.20-14)	-:	Average Rating-1
Adhesion	(CSA-Z245.20-14)	-:	Rating 1 - 2
	75°C for 24hours		
Pencil Hardness	(ASTM D 3363)	-:	2H Pass
Cathodic Disbondment	(CSA-Z245.20-14)		
	24 hours, 3.5V, 65°C	-:	Average 2 - 3 mm
	28 days, 1.5V, 20°C	-:	Average $3 - 4$ mm
Thermal Characteristics	(CSA-Z245.20-14)	-:	104 +-5°C
	(Cured Film)		Delta $Tg = +-3^{\circ} C$

**Storage Conditions:** Store Powder in a Dry cool condition below 25°C temperature & relative humidity of 65% for 6 month. Do not exceed 30°C. Keep powder in packed condition if not in use to ovoid contamination and moisture. Do not mix with any other Powder.

## FBE/ REV00 (03-07-2018)

The information in this Data Sheet is the outcome of National Paints research work and experience. The information contained herein is believed to be accurate but cannot be taken as a formal warranty.

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