



RHOPLEX™ I-2183N Emulsion

Regional Product Availability

- North America

Description

RHOPLEX™ I-2183N Emulsion is a modified aqueous acrylic polymer offering excellent heat resistance properties as an overprint varnish and a general ink letdown vehicle. It is a hard film former that offers excellent heat resistance without the use of zinc or zirconium additives. In fact zinc compounds should not be used as they will detract from performance. On press, RHOPLEX I-2183N Emulsion has excellent transfer and printability with good resolubility for ease of clean up.

Key Features

- Excellent heat resistance without zinc crosslinkers
- High inherent COF
- Excellent hot scuffing resistance (when formulated with waxes)
- Good gloss
- Good water resistance

Typical Physical Properties

(These properties are typical but do not constitute specifications.)

Property	Value
Appearance	Milky white emulsion
Solids, %	30.0
pH	8.6
Viscosity, cP	150 - 750
Tg, °C	70
Acid number	150
Molecular weight	>200,000
Freeze/thaw stability	Yes, 5 cycles
VOC	No

Compatibility Guidelines

Solvent Compatibility with RHOPLEX™ I-2183N Emulsion

RHOPLEX™ I-2183N Emulsion is not readily compatible with the typical alcohols and glycol ether solvents utilized in the graphic arts industry.

Compatibility with Other Polymers

RHOPLEX™ I-2183N Emulsion is not compatible with the standard styrene/acrylics that are used in the graphic arts industry and is typically used as the sole polymer in a formulation.

Typical Starting
Point
Formulations

Application: Heat Resistant Overprint Varnish

	Max. Heat	Hot Scuff
RHOPLEX™I-2183N Emulsion	86.0	82.0
Water	13.8	12.8
Michem emulsion 39235 ¹ (wax emulsion)	-	5.0
Dee Fo PI-209 defoamer ²	0.2	0.2
Total	100.0	100.0
TS, %	26.2	26.8
Viscosity, #2 Zahn cup, sec.	25-30	25-30
Heat resistance (400°F/25 psi/2 sec)	Pass	Pass
Sutherland rub, 150 cycles	Fail	Pass

¹ Michem emulsion 39235 (wax emulsion) – Supplied by and a trademark of Michelman

² Dee Fo PI-209 defoamer – Supplied by and a trademark of Munzing

Food Legislation

FDA Regulation	Complies	Limitations
21CFR175.105 (Adhesives)	Yes	None
21CFR176.180 (Components of paper and paperboard in contact with dry food)	Yes	None

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