

# PRODUCT DATA

## VINYLOK - D BRAKE SHOE & PAD ADHESIVE

*Edn. 03/08 dt. 12 Aug,08*

### PRODUCT DESCRIPTION

**VINYLOK-D** is a Fast Reactive viscous solution of Vinyl Phenolic resin in Methanol & Chlorinated Hydro Carbon. This product is supplied for application as moulded Brake pad adhesive used in, Locomotive & Automobiles industries.

### PHYSICAL PROPERTIES

Specific Gravity	:	1.0
Flash Point	:	23 deg. C
Non Volatiles	:	37 +/- 2 %
Viscosity at 25 deg. C	:	5,000 - 10,000 CPS
Cloud Point	:	< 10 deg C

### APPLICATION OF PRODUCT

Method : VINYLOK-D is capable of application by spray, brush or roller and should be applied only to the steel back material.

Drying : At 25-35 deg C : Overnight (or)  
At 70 deg C : 20-30 Minutes

Curing : ( 0.35-1.0 MPa Pressure)

180 deg C	:	3 Minutes
165 deg C	:	5 Minutes
150 deg C	:	7 Minutes

### PROPERTIES OF CURED PRODUCT

Superior weather, water, chemical and heat resistance (-20 deg C + 300 deg C). The following properties were determined using Test Methods indicated below. They are provided solely as Technical information and do not constitute a product specification.

Substrate : Bright mild steel back plate / fabricated m.s brake shoe / All grades of Al.die casted / Zn alloy etc.  
Friction Material - Green Staged Biscuits (for various types see results)

Pretreatment : Substrate - Degrease / shotblast and degrease.  
Optional : Chromatize compatible

Preparation : Brush Apply / Roller coat / Spray adhesive on to the steel Plate / shoe.

Drying : Overnight at ambient or 70 deg. C 20 minutes

Curing : Integral Hot Mounting : 150 deg. C for 5-7 mins. at 350-650 KSC Pressure.  
Pack & Back : 650 KSC Pressure / 220 - 240 deg. C bake.  
Clamp & Cure : 11 KSM pressure / 180 - 220 deg.C / 30 - 60 minutes

Test : Shear Stress at 25 deg.C / 200 deg.C and 300 deg.C ( ISO 6312/ SAEJ 840).

Typical failure Stress (KSC) for at Temp. ----->

25C	200C	300C
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Asbestos Type	70	50	65
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Non-Asbestos Organic	60	45	55
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Non-Asbestos Metallic	65	50	60
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All tests resulted in shear within the friction material (Type : 7 as per SAEJ 840).

**SHELF LIFE : 6 months @ temp. 30-40deg.C**

### Packaging

VINYLOK-D is available in 5, 10 and 20 liter containers.

## **INDIAN FRICTION MATERIAL ENGG. CO.**

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# PRODUCT DATA

## EMULSOL MOLD RELEASE AGENT

### PRODUCT DESCRIPTION

**EMULSOL** is a water-base, concentrated blend of organic and synthetic polymeric waxes designed for high temperature compression mold release application.

**EMULSOL** can be easily diluted with demineralized water to a solid level that best suits the molding requirements, usually between 10-15 times dilution with demineralized water.

**EMULSOL** is a conventional mold release and must be applied before every molding cycle.

**EMULSOL** has shown excellent results when used at molding temperatures between 140 deg C and 205 deg C. As a conventional release, **EMULSOL** must be applied only by spray for best results.

### RECOMMENDED USE

Phenolic Resin Molding : All types of rigid/rubberised molding

Compression Molding : Compounded wood fiber, Asbestos, Aramid, Glass, Rockwool and Rigid/flexible plastic molding.

### APPLICATION OF PRODUCT

1. Thoroughly clean the mold with a suitable solvent or detergent to remove any previous release agent or other buildup. Wipe dry with a clean cloth or towel. Then wipe with a chlorinated solvent or naphtha and let air dry.
2. Use conventional spray equipment (air-assisted or

airless) and hold spray tip 10" to 18" from the mold surface.

3. Apply two even coats of **EMULSOL** over the entire tool surface. Allow the water to evaporate before placing molding parts.
4. Reapply an event coat over the entire tool after every shot to insure subsequent release ease.
5. The tool/mold surface should be Hard Chrome Plated for best results.

### TYPICAL PROPERTIES

Appearance : Off-white liquid

Density, kg/l : 0.96 - 1.0

% Solids : 30 +/- 2

Storage stability: 6 months (unopened container)

Store at 25-35 deg. C temperature; keep away from freezing. Keep containers tightly sealed to prevent evaporation and/or contamination.

### HANDLING

**EMULSOL** is non-hazardous when used as intended.

### PACKAGING

**EMULSOL** is available in 50, 100 and 200 liter containers.

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