

**TDS 0816**

REVIEW: 02/2015

Standards: PETROBRAS N-1342

USIMINAS NCU-0185 a

**Rethane FBR 645**

Component A: 645.9100

Component B: 852.0500



Rethane FBR 645 uses specially selected raw materials, showing excellent color and gloss retention. High chemical, physical and weathering resistance, it is easy to apply with conventional spray gun. It can be formulated in organic pigment, free from heavy metals.

**TECHNICAL CHARACTERISTICS****TYPE**

Aliphatic polyurethane topcoat, two pack system.

**USAGE**

Recommended as topcoat over epoxy primer in deck, superstructure and accessories. Metal structures, industrial equipment, marine and offshore. External coating of tanks and pipes.

**TECHNICAL INFORMATION**

<b>COLOR</b>	White	Other colors, please consult.	
<b>FINISH</b>	Glossy		
<b>VOLUME SOLIDS</b>	52% ± 2	According to ISO 3233	
<b>WEIGHT PER LITER</b>	1,200 ± 0,05 g/ml	According to ASTM D 1475	
<b>FLASH POINT</b>	24°C		
<b>MIXING RATIO</b>		Weight	Volume
	<b>Comp. A</b>	100,0	6,2
	<b>Comp. B</b>	15,0	1,0
<b>POT LIFE (25°C)</b>	4 h		
<b>INDUCTION TIME</b>	15 to 30 min		
<b>THEORETICAL SPREADING RATE</b>	14,9 m <sup>2</sup> /l - 35 µm		
<b>WET THICKNESS</b>	67 µm		
<b>DRY THICKNESS</b>	35 µm		
<b>DRYING TIME, for 35 µm</b>		25°C	
		Minimum	Maximum
	<b>Touch</b>		2 h
	<b>Handle</b>		6 h
	<b>Recoat</b>	16 h	48 h
<b>ENVIRONMENTAL CONDITIONS</b>	<b>Temperature</b>	Should be between 5 to 52°C	
	<b>Relative Humidity</b>	Between 30 to 85%	
	<b>Dew Point</b>	Surface temperature is at least 3°C above dew point	
	<b>Thinner</b>	440.0000 / 440.0005	
<b>APPLICATION</b>	<b>Brush</b>	Dilute up to 5% (vol.) with 440.0005 thinner. This method must be used only for retouch and backing of welding cords and corners.	
	<b>Roller</b>	Dilute up to 5% (vol.) with 440.0005 thinner. Must be used solvent resistant roller (sheep wool). The wool must be cutted (small size) to avoid blistering during the application.	
	<b>Conventional Spray Gun</b>	Dilute up to 10% (vol.) with 440.0000 thinner. Conventional DeVilbiss JGA 502 FX 704 spray gun or similar. Spray pressure between 2,5 to 3,0 kgf/cm <sup>2</sup> (35 to 43 psi). Tank pressure between 0,5 to 1,5 kgf/cm <sup>2</sup> (7 to 21 psi).	
	<b>AirLess Spray Gun</b>	Dilute up to 10% (vol.) with 440.0000 thinner. Use nozzles between 9 to 17 and pump pressure between 140 to 175 kgf/cm <sup>2</sup> (2000 to 2500 psi).	

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<b>SURFACE PREPARATION</b>	<b>Over recommended primer</b>	The surface must be dry, free of contaminants such as salt deposits, oil, grease, fat, dust and other kind of contaminants.
	<b>Coated Surfaces</b>	The surface must be clean and free of contaminants as oils, fat, grease and dust. Must not present peeling's areas. Proceed light sanding (220) to break the gloss.
	<b>Recommended Primers</b>	Revran PLB 520, Revran PLB 530, Revran PFZ 520, Revran PAA 540. Others primers, please contact our technical department.

**SHELF LIFE** 12 months

**UN NUMBER** 1263

**HAZARD NUMBER** 33

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**IMPORTANT RECOMMENDATIONS**


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1. The practical spreading rate of the product varies according to the applied thickness, application method and techniques, type and rugosity of the surface and ambient conditions.
2. The weight/l, viscosity and drying values were obtained in laboratory at a temperature of 25°C. At an altered temperature, the results might be different from the specified ones.
3. Low temperatures increase the curing time. At temperatures below 10°C, please contact our technical department.
4. Pot life is shortened by higher temperature and by the increase of catalyzed volume.
5. Component B consists of isocyanate , which is reactive with moisture in the air. Therefore , every use of the product , close the container as soon as possible so that does not lose its efficiency.
6. For aluminum color should be the last coat applied Rethane product DHG 652 Colorless to avoid staining of the film, due to the presence of water and / or moisture, and also due to handling parts already painted .
7. The 4th digit of the product number 7 indicates organic pigmentation and adds up the acronym ORG and may have restrictions in some colors.

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**SAFETY PRECAUTIONS**


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1. Improper use and handling of this product can be hazardous to health and cause fire or explosion. Do not use it without first taking all appropriate measures to prevent property damage and injuries.
  2. Storage: keep the product in sheltered, well-ventilated areas. Maximum temperature: 40°C. Must not be directly exposed to the sun.
  3. Flammable: flammable product, which must be kept distant from ignition sources, and do not smoke nearby.
  4. Inhalation: Avoid breathing vapors, keeping proper ventilation during application and drying.
  5. Handling: wear proper protective clothing and masks, goggles, etc. Do not eat or drink nor allow children and animals to be near the application area.
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**HEALTH HAZARDS**

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1. Skin contact: wash affected area thoroughly with neutral soap.
2. Clothing contact: remove clothing and wash it.
3. Leakage: Isolate the area, and do not smoke nearby. If large quantity leaked in confined area, wear protective masks. Do not inhale vapors. Stop leakage with sand, sawdust or soil, and transfer liquid and solid to separated recipients for disposal.
4. Fire: protect non-affected recipients with water spray. Extinguish fire using carbon dioxide, foam or dry chemical.
5. Eyes contact: flush eyes with large amounts of clean water for at least 10 minutes, and get medical attention immediately.

IMPORTANT: For further information consult the product MSDS (Material Safety Data Sheet).

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