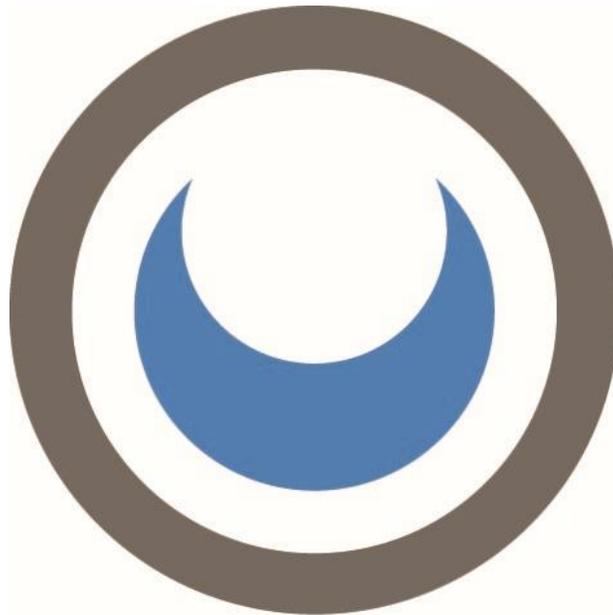




Repiper Resin – Systems  
TDS – Technical Data Sheet

Product name: Repiper Epoxy Resin <i>EX4-2</i>	
General Information	Epoxy Resin System for CIPP



**Safety and handling Precautions**

Refer to the safety data sheet and comply with regulations relating to industrial health and waste disposal.

**Publicized data**

The information given in this publication is based on the present state of our technical knowledge but buyers and users should make their own assessments of our products under their own application conditions.



## PRODUCT INFORMATION

Resin	Hardener	Mixing Ratio By weight
Epoxy EX4-2	Hardener EX4-2	100:20
<p>Repiper Resin system EX4-2 is a two-component resin system made to impregnate for CIPP liners.</p> <p>Product description: The EX4-2 is a solvent free, pigmented two component good reactive epoxy system with high mechanical property and high TG when cured at 122 °F (50 °C). It also cures without heat assist.</p> <ul style="list-style-type: none"> <li>- Highly resistant to acids, bases and oil derivative as gasoline, and different fuels.</li> <li>- High bonding abilities to materials as metal and concrete.</li> </ul>		

Applications	CIPP – Pipe relining with different impregnated felt liner products
Processing	Impregnation of felt products preferably with vacuum. Curing at room temperature is possible. Heat assisting with hot water or steam the curing processes will take around 3 h at 122 °F (50 °C), 1,5 h at 140 °F (60 °C).
Description	Two component epoxy resin system with long pot life, good compatibility with humid surfaces, good thermal residence, and good mechanical properties in function of what kind of felt used.

Mechanical Characteristics (Cured at 122 °F (50 °C) for 3 h)			
Flexural elastic modulus	EN ISO 11296-4 EN ISO 178	MPA N/mm <sup>2</sup>	min. 2700
Flexural strength	EN ISO 11296-4 EN ISO 178	MPA N/mm <sup>2</sup>	min. 79
Elongation at break	EN ISO 11296-4 EN ISO 178	%	2,1
Tensile strength	EN ISO 11296-4 EN ISO 178	MPA N/mm <sup>2</sup>	34
TG	EN ISO 11296-4	°C	104



General Data's		
Resin	Drum: 225kg	Can: 14kg
Hardener	Drum 200 Kg	Can: 3,5kg
Color Resin	Blue	
Color Hardener	Clear/Amber	
Mixing ratio (by weight)	100:20 (5:1)	
Components	Viscosity at 72°F (22 °C) in (mPas)	Density at 72°F (22 °C) in (g/cm <sup>3</sup> )
Comp A	800-1100	1,13
Comp B	10-20	1,0
Comp A + B	800-100	1,10

Processing Time			
Material temperature	50 °F (10°C)	59°F (15°C)	68 °F (20°C)
Potlife in 125g cup	--	270min	210min
Potlife in impregnated Liner	--	Ca 5h	Ca 4h



Curing time			
Ambient curing			
Material temperature	50 °F (10°C)	59°F (15°C)	68 °F (20°C)
Curing time in 125 g cup	--	Ca 36 h	Ca 24 h
Warm curing			
Material temperature	104 °F (40 °C)	122 °F (50 °C)	140 °F (60 °C)
Curing time	Ca 6 h	Ca 3 h	Ca 1,5 h
Repiper Epoxy Resin system EX4-2 does not react until min environmental temperature reach 50°F (10 °C) without heat support.			
Total cure time consist of: Warming up process - curing process – Cooling down Process			

### Instruction

Add the appropriate quantity of hardener to the appropriate quantity of resin, mix carefully. Mix for about 3-5 minutes, as function of the amount to be mixed.

Avoid air trapping. Keep the temperature of the mixture under control and avoid allowing it to pass 77°F (25 °C) (at higher temperatures pot-life is reduced). The faster the mixing process the more time there is available for impregnation and installing the liner product

### Storage

Repiper Epoxy resins and their hardeners can be stored for two years in the original sealed containers stored in a cool, dry place. The hardeners are moisture sensitive therefore close the container immediately after each use is necessary.

### Safety and handling Precautions

Refer to the safety data sheet and comply with regulations relating to industrial health and waste disposal.

### Publicized data

The information given in this publication is based on the present state of our technical knowledge but buyers and users should make their own assessments of our products under their own application conditions.