

## Selection & Specification Data

<b>Generic Type</b>	Two component abrasion resistant epoxy novolac matrix	
<b>Description</b>	CAR 100 is a solvent-free epoxy novolac ceramic system for the repair of steel surfaces subject to erosion, corrosion and chemical attack. CAR 100 will provide a surface that should also improve flow and equipment efficiency. It may be applied in a single coat application up to 500 microns without slumping. Multiple coats will be necessary in extreme circumstances.	
<b>Colour</b>	Charcoal	
<b>Finish</b>	Semi-gloss (Epoxies lose gloss and eventually chalk in sunlight exposure).	
<b>Dry Film Thickness</b>	300 to 500 Microns	
<b>Solids Content</b>	99% ± 1%	
<b>Theoretical Coverage Rate</b>	1,14m <sup>2</sup> /kg at 500 microns <b>Note:</b> Material losses during mixing and application will vary and must be taken into consideration when estimating job requirements.	
<b>Dry Temp Resistance</b>	Performance is dependent on actual chemical exposure. Refer to StonCor Africa Technical Department. Most aqueous solutions      65°C Non-immersion                      125°C	
<b>Typical Physical Properties</b>	Consistency	0,5mm No sag
	Cured Density	1,75
	Compressive Strength	85 MPa
	Tensile Shear Adhesion at 25°C	3,5 MPa
	Tensile Shear Adhesion at 125°C	2,0 MPa
	Shore D Hardness	88
<b>Recommended Uses</b>	CAR 100 is recommended for quick repair and lining of steel surfaces exposed to wear and chemical attack, i.e. impellers, pipes, valves and pump casings.	
<b>Not Recommended</b>	Not recommended for engine components.	
<b>Abrasion Resistance</b>	Excellent	
<b>Substrates</b>	Apply over suitably prepared steel surfaces	
<b>Chemical Resistance</b>	<b>Exposure</b>	<b>Immersion</b>
	Dilute Inorganic Acids	Excellent
	Alkalies	Excellent
	Solvents	Good / Excellent
	Salt	Excellent
	Water	Excellent
	Sewage	Excellent

## Substrates & Surface Preparation

<b>General</b>	Remove all oil or grease from surface to be coated prior to abrasive blast, power or hand tool cleaning.
<b>Steel</b>	Ensure that the surface is dry and free from all contaminants. Dry abrasive blast to a Near White Metal Finish in accordance with ISO 8501 Sa2½ to obtain a 75 to 125 micron blast profile.  For mild environments, power tool clean in accordance with ISO 8501 St3 to produce a rust scale free surface.
<b>Crevice Filling</b>	Remove all embedded contamination such as dust, dirt, rust, etc. from crevice by means of high pressure water washing. Sandpaper edges to remove rust and other foreign materials. Ensure that the surface is dry and free from dust or any other contaminants.
<b>Recommendation</b>	Do not attempt to install material if temperature of material and substrate are not within 16 to 32°C. The curing time and application properties of the material are severely affected by temperature changes. Do not use water or steam in the vicinity of the application. Moisture can seriously affect the working time and other properties. Do not add thinners to the system. Full cure will not be achieved and performance will be affected.

## Mixing & Thinning

<b>Mixing</b>	For best results, the contents of both tubs should be mixed together for approximately 4 to 5 minutes using a trowel or putty knife.
<b>Thinning</b>	Do not thin.
<b>Pot Life</b>	30 Minutes at 25°C and less at higher temperatures. Pot life ends when coating becomes too viscous to use.

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## Application

**General** Using a cut-back paint brush or roller, apply a thin layer to wet out the substrate before applying the matrix to the desired thickness. If mixed material is left in the container, it will become unusable within 30 minutes, depending on temperature. If further build-up of coating is required, light abrasive blast or sand the cured surface to create a rough profile for improved adhesion. A reinforcing fabric such as woven glass fibre can be bedded into the CAR 100 and overcoated immediately when additional support is required. Clean equipment immediately after use with Brush Cleaner and rinse off in clean water. Post curing at 60°C for 4 hours will accelerate the cure rate to full cure status. This process must be carried out in a gradual increase and subsequent decrease in temperature so as not to shock the system.

## Cleanup & Safety

**Cleanup** Use Brush Cleaner and water.

**Caution** Read and follow all caution statements on this product data sheet.

Avoid contact with Parts A and B as they may cause skin and/or eye irritation. Workmen should cover hands with protective creams and rubber gloves. Use only with adequate ventilation.

## Application Conditions

Condition	Material	Surface	Ambient	Humidity
Normal	19-29°C	16-29°C	16-29°C	0-85%
Minimum	16°C	16°C	10°C	0%
Maximum	32°C	32°C	40°C	85%

Do not apply when the surface temperature is less than 3°C above the dew point.

## Curing Schedule

	Dry to Touch	Dry to Handle	Final Cure	Overcoating
25°C	1½ Hour	8 Hours	48 Hours	8 to 16 Hours

## Packaging, Handling & Storage

<b>Shipping Weight (Approximate)</b>	Part A & B	1.0kg
	Brush Cleaner	4,6kg
<b>Flash Point (Pensky)</b>	Part A	>93°C
<b>Martens Closed Cup)</b>	Part B	>93°C
	Brush Cleaner	22°C
<b>Storage Temperature &amp; Humidity</b>	Temperature	4-35°C
	Humidity	0-90%
<b>Storage</b>	Store indoors	



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