

LOCTITE® CR 5103 / LOCTITE® CR 4100

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PRODUCT DESCRIPTION

LOCTITE® CR 5103 / LOCTITE® CR 4100 provides the following product characteristics:

Technology	Polyurethane
Product type	PU adhesive
Cure	Polyaddition
Condition	Solvent-free
Components	2-component
Component A	Resin
Component B	Hardener
Application	Casting compound
Color (Comp. A)	Yellowish
Color (Comp. B)	Yellowish
Mix ratio, by weight (Component A : B)	100 : 72

LOCTITE® CR 5103 / LOCTITE® CR 4100 is a solvent-free two-component casting resin, based on polyurethane. The resin part (component A) contains organic compounds with hydroxyl groups, the hardener (component B) is based on isocyanates.

By mixing both components in a mix ratio of 100 : 72 a hard elastic casting resin is formed through chemical reaction. After curing the product exhibits no measurable change in volume.

Application Areas:

LOCTITE® CR 5103 / LOCTITE® CR 4100 is used as a casting material for dialyzing units.

TECHNICAL DATA

Component A

LOCTITE® CR 5103

Consistency	Liquid
Density, g/cm ³	0.91 to 1.01
Viscosity, Brookfield - RVT, 20°C, mPa.s * Henkel method 10	1,000 to 1,400

Component B

LOCTITE® CR 4100

Consistency	Liquid
Density, g/cm ³	1.16 to 1.26
Viscosity, Brookfield - RVT, 20°C, mPa.s * Henkel method 10	700 to 1,500

Mixture (Component A + B)

Consistency	Liquid
Viscosity, Brookfield - RVT, 20°C, mPa.s Henkel method 11	700 to 1,500
Pot life (172g, 25°C), min* Henkel method 21	5.5 to 7.5
Shore D Hardness, 23°C ISO 868	58 to 68

All technical data based on Henkel test method.
Data with * are specified.

DIRECTIONS FOR USE

Preliminary statement

Prior to application it is necessary to read the **Material Safety Data Sheet** for information about precautionary measures and safety recommendations. Also, for chemical products exempt from compulsory labeling, the relevant precautions should always be observed. Please also refer to the local safety instructions and contact Henkel for analytical support.

Pretreatment:

The substrate should be clean, dry, free of dust, oil, grease and other contaminants. The usage of suitable primers on metal surfaces can improve the adhesion and / or the long-term bond stability. The surface of plastic materials should be cleaned, so as to remove any kind of release agents present on the substrate surface. An improvement of the adhesion can be achieved by grinding or sandblasting the surface.

Application

Adhesive components can be mixed manually by using an electrical hand mixer or by using a two-component dispensing system and inclusion of air must be prevented. After mixing no streaks must be visible. The adhesive is only to be used within a limited time (pot life). After this time the mixture gels up and is not suitable for use. Therefore only the amount that can be applied within the time of pot life should be mixed. The pot life depends on the quantity and temperature of the mixed batch. With larger quantities and an increase in temperature, the pot life decreases. Lower temperatures extend the pot life. Adhesive components should not come into contact with moisture during storage or application. Contact with moisture generates foaming of the adhesive and weakens the bondline. Therefore all packaging should be sealed properly and protected against humidity during storage.

Curing

LOCTITE® CR 5103 / LOCTITE® CR 4100 systems can be cured between 15°C and elevated temperatures (up to 60°C). The curing time will be reduced substantially with increasing temperatures. The addition of chemical catalysts (accelerators) also speeds up the curing reaction (i.e. pot life, open time).

Cleaning

Fresh, uncured material (cleaning application equipment, substrate contamination etc.) can be removed with LOCTITE® SF 8040; cured adhesive can only be removed mechanically.

Classification

Please refer to the corresponding **Material Safety Data Sheets** for details on:

Hazards identification
Transport information
Regulatory information

Storage**Component A**

Recommended storage temperature, °C	15 to 25
Shelf life (in unopened original packaging), months	6

Component B

Recommended storage temperature, °C	20 to 40
Shelf life (in unopened original packaging), months	9

Transport below 20°C or greater than 40°C can adversely affect product properties.

ADDITIONAL INFORMATION**Disclaimer**

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