

MasterSeal® CR 435

High performance chemically resistant polyurea hybrid joint sealant

DESCRIPTION

MasterSeal CR 435 is a two component, chemically curing, hybrid polyurea sealant. **MasterSeal CR 435** exhibits high chemical resistance, moisture insensitivity during curing and is UV resistant, resulting in good durability.

RECOMMENDED USES

Active, exterior and interior joints that demand extreme chemical resistance. **MasterSeal CR 435** is used in conjunction with Ucrete flooring surfaces where resistance to heat, moisture and chemicals is required. **MasterSeal CR 435** can be used on horizontal applications including trafficable surfaces on floors and bunds. Substrates include concrete, polyurethane concrete, novalac epoxies and chemically resistant epoxies.

FEATURES AND BENEFITS

- **Chemically resistant UV stable polyurea technology** - non-staining, non-yellowing, non-chalking for use internally and externally.
- **Medium modulus** - excellent puncture and abrasion resistance for heavy traffic areas.
- **Easily gunable and low viscosity** - easy tooling and finishing.
- **Chemical cure** – cures independently of the ambient temperature or relative humidity and will cure at or near freezing.
- **Movement capability ±25%** - expands and contracts with joint movement.
- **Excellent chemical resistance** - ideal in food or petroleum environments.
- **Fast Cure**- allows return to service after one hour at 20°C

COMPLIANCES

- Federal Specification TT-S-00230C, Type II, Class A when primed.
- ASTM C 920, Type S, Grade NS, Class 25. Use NT, M, A, G and I.
- Corps of engineers CRD C-541, Type II, Class A.

PERFORMANCE DATA

Property	Test Method	Value (Average)
Movement capability (MAF)	ASTM C 719	± 25%
Tensile strength	ASTM D 638	7.8 MPa
Ultimate elongation at break	ASTM D 638	340%
Hardness at standard conditions (Shore A)	ASTM C 661	75-80
Tack-free time	ASTM C 679	Less than 1 hour
Stain and colour change	ASTM C 510	None
Volatile Organic Compounds (VOC)	SCAQMD Method 304-91	90g/litre
Service temperature range (°C)		-40 to 82
	Part A	Part B
Mix ratio	100	100
Viscosity @ 25°C (ASTM D-1638)	1000 cps	1100 cps
Colour		grey
Specific gravity	1.1 kg/l	1.06kg/l

Note: The data represents information typically required to verify performance.

ESTIMATING DATA

Joint Size (mm)	Metres per litre
5 x 5	40
10 x 10	10
12 x 12	7
15 x 7.5	9
20 x 10	5.00

APPLICATION

For information on joint design, surface preparation and priming, refer to "Application Guide for MasterSeal CR 435 Sealants" available from BASF office or website.



We create chemistry

MasterSeal® CR 435

Application

- **MasterSeal CR 435** comes in a 300ml:300ml side by side cartridge and is mixed when extruded through a static mixer. Apply by professional dual cartridge gun. Unused material can be resealed for later use and static mixer is discarded.
- Fill joints from deepest point to the surface by holding a suitably sized nozzle against the back of the joint.
- Dry tooling is recommended. DO NOT use soapy water when tooling. Tooling results in the correct bead shape, a neat joint, and maximum adhesion.

For Best Performance

- Do not allow uncured **MasterSeal CR 435** to come into contact with alcohol-based materials or solvents.
- **MasterSeal CR 435** should not come in contact with oil-based caulking, polysulfides or fillers impregnated with oil, asphalt or tar.
- Protect unopened containers from heat and direct sunshine.
- **MasterSeal CR 435** can be applied below freezing temperatures only if substrates are completely dry, free of ice or frost, and clean.

CURING

The cure of **MasterSeal CR 435** is independent of the ambient temperature and will gel in 3 - 4 minutes. The material will be trafficable in about 1 hour and suitable for full chemical contact in 24 hours. Cure is independent of joint thickness.

CLEANING

Immediately after use, remove the static mixer and discard. Reinsert the plug into the top of the cartridge and replace the screw cap to reuse the material at a later time. Clean equipment with thinners. Use proper precautions when handling solvents. Remove cured sealant by cutting with a sharp edge tool. Remove thin films by abrading.

PACKAGING

15 dual cartridges to a carton. 5 static mixers per carton.

SHELF LIFE

Store in original, unopened packaging under normal conditions. **MasterSeal CR 435** has shelf life of 24 months. Pigment may have settled whilst in storage and can be reconstituted by turning the cartridge upside down for a few hours and then shaking until homogeneous.

PRECAUTIONS

For the full health and safety hazard information and how to safely handle and use this product, please make sure that you obtain a copy of the BASF Construction Chemicals Safety Data Sheet (SDS) from BASF office or website.

MasterSeal[®] CR 435

CHEMICAL RESISTANCE CHART

Acetic Acid		A
Acetone		A
Ammonium Hydroxide:	10%	A
	20%	A
Brake Fluid		B
Chlorox ^{®1} , 10%		NR ²
Diesel Fuel		A
Dimethyl Formamide		NR
Gasoline, unleaded		A
Hexane		A
Hot tub water ³		A
Hydraulic Fluid A 10% NaCl/Water		A
Hydraulic oil		A
Hydrochloric Acid	5%	A
	10%	
Jeffamine [®] D-400		NR
Methanol		A
5% Methanol/gasoline		A

2-Methylbutane		A
Motor Oil		A
MTBE		A
5% MTBE/gasoline		A
Phosphoric Acid 10%		A
Potassium Hydroxide	10%	A
	20%	A
Propylene Carbonate		C
Sodium Hydroxide	10%	A
	20%	A
	50%	A
Sulfuric acid,	conc	*NR
	5%	A
	10%	A
Toluene		C
Vinegar (5% acetic acid)		A
Water		A
10% NaCl/Water		A
10% Sugar/Water		A

Code describing chemical's effect on elastomer:

A – No visible damage B – Little visible damage

C – Some effect – swelling, discoloration, cracking

NR – Not recommended * - Less than 24-hr. exposure

¹ – Trademark of Procter & Gamble ² – All samples

darkened ³ – Brominated water

MasterSeal-CR435-ANZ-V8-1217

STATEMENT OF RESPONSIBILITY

The technical information and application advice given in this BASF publication are based on the present state of our best scientific and practical knowledge. As the information herein is of a general nature, no assumption can be made as to a product's suitability for a particular use or application and no warranty as to its accuracy, reliability or completeness either expressed or implied is given other than those required by law. The user is responsible for checking the suitability of products for their intended use.

NOTE

Field service where provided does not constitute supervisory responsibility. Suggestions made by BASF either orally or in writing may be followed, modified or rejected by the owner, engineer or contractor since they, and not BASF, are responsible for carrying out procedures appropriate to a specific application.

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