



## BAUSEAL CR

### 2 Part Chemical Resistant Polysulphide Joint Sealant

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#### DESCRIPTION

BAUSEAL CR is a two component, chemical resistant polysulphide joint sealant

BAUSEAL CR is specifically designed to be used as a watertight seal for moderate movement and control joints in areas subjected to industrial chemicals, hydrocarbon fuels and effluents. It is based on a liquid polysulphide polymer which when mixed with the hardener, cures to form a tough, flexible and non staining rubber like seal.

BAUSEAL CR has excellent adhesion to concrete, stone, metals and other common building substrates. The cured sealant has good resistance to deterioration on prolonged exposure to UV.

BAUSEAL CR is available in two different grades. BAUSEAL CR black is resistant to chemical and sewage effluents. BAUSEAL CR grey is resistant to hydrocarbon fuels. The sealant has a movement Accommodation Factor (mAF) of  $\pm 25\%$

#### TYPICAL USES

- Sealing of movement and control joints in:
- Chemicals spillage areas & storage tanks
- Fuel spillage areas and storage tanks
- Sea walls & marine structures

- Waste water effluent treatment structures
- Bridge decks and highway pavements
- Airport runways and apron pavements
- industrial floors

#### ADVANTAGES

- High resistance against industrial chemicals, hydrocarbon fuels and effluents
- Highly resilient with excellent recovery characteristics
- Provides permanent and uniform watertight seal
- Can be used in submerged conditions. Resists up to 50m Hydrostatic pressure
- Excellent adhesion to most common building substrates
- Excellent resistance to fatigue and stays flexible throughout its service life.
- won't become brittle, caulk or crack due to ultra violet exposure
- Good resistance to ageing. Retains joint soundness once cured
- Prevents uncontrolled cracking by allowing expansion and contractions during temperature changes
- Non-toxic. Can be used in potable water reservoirs and swimming pools

**STANDARDS:** BAUSEAL CR complies with the requirements of: BS eNiSo 11600:2003 + A1:2011 (formerly BS 4254), BS 5212; Part 1 ASTM C 920, Type m, Grade P & NS, Class 25%, USeTWAS- BS 6920 Test on effect of water quality, ASTM C 920, Type m, Grade P, Class 25, USe T

Adhesion to Concrete, [N]	>25 N
Initial cure @standard condition,[hrs]	24 Hours
Full cure @standard condition, [days]	7 days
Application temperature, [°C]	5 to 50 deg C
Service temperature, [°C] -20 to 70	-20 TO 70 deg C

### CHEMICAL RESISTANCE

Chemical	Black	Grey
Ammonium solution (10%)	+	+
Alcohol (100%)	+	+
Acetic acid, 10%	O	-
Aviation fuel	+	O
Citric acid, 5%	+	-
Caustic soda, 50%	+	-
Chlorine	+	+
Diesel	+	+
Hydrochloric acid, 20%	o	-
Kerosene	+	+
lactic acid, 5%	+	-
Nitric acid, 5%	O	-
Petrol	+	+
Sulphuric acid, 10%	+	-
Vegetable oil	+	+
White spirit	+	+
Toluene	+	+

Note: + = resistance,  
o = limited resistance,  
-- = Not resistant

### TECHNICAL PROPERTIES

(The properties shown below were obtained under laboratory conditions).

Color	Grey/Black
Density Gun Grade	1.55± 0.03 (g/cc)
Pouring Grade	1.30± 0.03 (g/cc)
Shore 'A' Hardness Gun grade	35-50
Pouring grade	15-35
UV resistance @300 hrs	No Deterioration

### APPLICATION INSTRUCTION

#### JOINT PREPARATION

The joint surface must be clean, dry and free from oil, loose particles, cement laitance and other contaminants which may affect the adhesion. A thorough wire brushing, grinding, sand blasting or solvent cleaning may be required to expose a clean and sound substrate. The compressible joint filler shall be cut back to expose a uniform joint depth.

#### PRIMING

Primer should be applied to clean, dry surface prior to the installation of backer rod or bond breaking tape. The primer BAUPRIME PS is recommended for to be applied on porous substrates.

For nonporous substrates such as steel or glass BAUPRIME NP is recommended. The primer has to be applied by a brush in a thin coat application and shall be allowed to become tack free, prior to the application of the sealant. The joint edges shall be re-primed if the sealant is not carried out within 3 hours of application of the primer.

For obtaining a clean and neat finish, masking tape shall be applied on both the edges of the groove before applying the primer.

## BACK-UP MATERIAL

A bond breaking backing rod shall be inserted into all movement joints to avoid a three sided adhesion. Use of a backing rod will ensure proper joint depth and at the same time facilitate the formation of an hour glass profile on the applied sealant.

The backer rod will also provide resistance to sealant tooling pressure and help to attain proper wetting of the substrate when the sealant is being tooled. The backing rod being inserted into the joint shall be of a diameter which is at least 20% larger but not greater 33% of the joint width.

This will ensure that the backer rod remains in compression and in place during Sealant installation. For static and joints where the depth is not sufficient for the use of the backing rod, a bond breaking tape may be applied to prevent the three side adhesion.

**CAUTION:** Do not damage or poke holes in the backer rod during or after installation, since this may cause air bubbles in the sealant and affect its performance.

## MIXING & APPLICATION

**GUN GRADE:** BAUSEAL CR gun grade is available in a ready to mix container, with all the components packed in a single tin

**POURING GRADE:** BAUSEAL CR pouring grade is supplied in pre weighed two parts pack, which requires on site mixing by pouring the hardener (Part B) into the base (Part A) pail.

Mix the material thoroughly with a slow speed drill (300-400 rpm) fitted with a flat bladed

paddle for 1-3 minutes till a uniform colour and consistency is achieved.

**DO NOT PART MIX.** Since the base and the curing agent ratio controls the ultimate physical properties like adhesion, durability and strength, one complete kit has to be mixed at a time.

The side and base of the container shall be periodically scrapped with a scrapper to ensure that the curing agent is properly dispersed and blended into the mix.

Load the gun grade sealant immediately into the barrel gun by a heavy duty follower plate. Start extruding into the joint firmly by maintaining an even pressure on the trigger of the gun. On vertical joints, sealant extrusion shall start from the bottom of the joint and continued to the top. For deep vertical joints, the sealant shall be filled in 2 to 3 applications in order to avoid air entrapment and sagging.

The pouring grade material can be poured directly into the joint from the pail. Once the sealant has been installed a suitable rounded tool soaked in a soapy water solution can be used to achieve a smooth hour glass profile. Any masking tape applied should be removed immediately after the sealant is installed.

## JOINT DESIGNS

Joints with cyclic movement should have a width to depth ratio of 2:1 for butt joints and 1:1 for floor, static and lap joints. The joint depth shall not exceed the width.

The joint width and depth should be maintained as recommended:

- Joint Width 6 mm (minimum) 30 mm (maximum)
- Joint Depth 6 mm (minimum for porous surfaces) 5 mm (minimum for non porous surfaces)
- 20mm for heavily trafficked floor joints and areas exposed to hydrostatic pressure

#### COVERAGE

Length of joints in meters filled per 1 Ltr of BAUSEAL CR

	Depth (mm)			Width (mm)				
	6	10	15	20	25	30	40	50
6	27.5	16.5						
10		10	6.5	5.0				
15			4.4	3.3	2.6	2.2		
20				2.5	2.0	1.6	1.25	
25					1.6	1.3	1.0	0.80
30						1.1	0.83	0.67
40							0.62	
50								

#### Limitations

*BAUSEAL CR is not recommended for:*  
*Joints greater than 30mm width for Gun Grade and 50mm width for Pouring Grade*  
*Overhead joints*  
*Movement joints having mAF>25%*  
*Damp and contaminated surfaces*  
*Asphalt pavements*  
*Over painting (paint compatibility with sealant shall be checked prior to painting)*

#### PACKAGING

BAUSEAL CR Gun Grade: 2.5 Liters

BAUSEAL CR Pouring Grade: 4 Liters.

#### STORAGE

Store under cover, out of direct sunlight, clear of the ground on pallets and protect from extreme temperatures. In tropical climate the product must be stored in air conditioned environment (<25°C).

**Shelf life** is 12 months when stored as above.

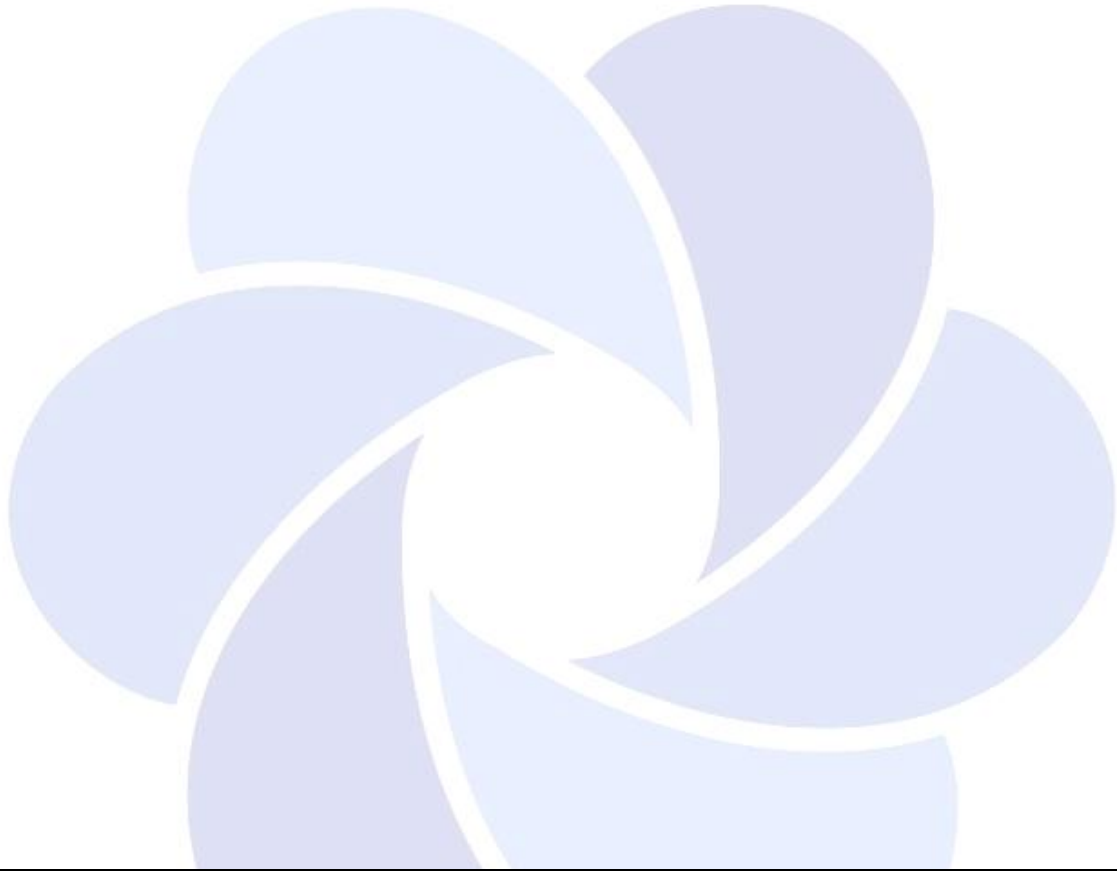
#### PRECAUTIONS

As with all construction chemicals products caution should always be exercised. Protective clothing such as gloves and goggles shall be worn.

Treat any splashes to the skin or eyes with fresh water immediately. Should any of the products be accidentally swallowed, do not induce vomiting, but call for medical assistance immediately.

There are no known health hazards associated with BAUSEAL CR.

Clean all the tools with water after use. Hardened materials can be removed mechanically only. Allow the waste to cure. Seal it into a suitable container and bury in landfill as per the local regulations.



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Note: Whilst any information contained herein is true, accurate and represents our best knowledge and experience, no warranty is given or implied with any recommendations made by us, as the conditions of any labor involved in the application is beyond our control. BAUTECH shall not be liable for any injury, loss or damage, direct or consequential, arising out of the use of this product. It is the responsibility of the user to ensure that the product meets his particular requirements and to use it in a suitable way. Field service, where provided, does not constitute supervisory responsibility. For additional information contact your local BAUTECH representative.



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