

# MasterSeal® CR 460

## Polyurethane joint sealant

### DESCRIPTION

**MasterSeal CR 460** is a two component polyurethane joint sealant. It is pourable and self-levelling.

**MasterSeal CR 460** is used together with **MasterSeal P 460**, a two component clear polyurethane primer.

### RECOMMENDED USES

Designed to complement the Master Builders Solutions range of Ucrete, Polyurethane and Epoxy resin flooring systems, **MasterSeal CR 460** can be used to seal induced and movement joints in resin floors where a combination of chemical resistance, heat resistance and the ability to withstand aggressive traffic conditions is required.

Typical uses would include floors in the food processing, engineering, chemical, pharmaceutical and metal processing industries.

### FEATURES & BENEFITS

- **Good Chemical Resistance** – Used in High chemical exposed areas
- **Wear & Weather Resistance** – can be used in trafficable areas
- **Solvent Free & Non-Tainting** – Hygienic and Safe to use in Food Industries
- **Pourable Grade** – Easy to apply

### PERFORMANCE DATA

Density (Kgs/m <sup>3</sup> ) (DIN 53479)	1550 – 1600	
Tensile strength (MPa) (ISO R527)	1.6 – 2.0	
Elongation at break (%) (ISO R527)	20 – 23	
Shore A Hardness (DIN 53505)	80	
Maximum Elongation	Width	Depth
	7mm	5mm
	10mm	6mm
	15mm	10mm
	20mm	10mm
	30mm	15mm
	Elongation	
	1.4mm	
	1.8mm	
	2.2mm	
	2.5mm	
	3mm	

### CHEMICAL RESISTANCE

**MasterSeal CR 460** will resist spillages of:

- Dilute mineral acids: chromic, hydrochloric, nitric, phosphoric and sulphuric
- Dilute alkalis
- Most dilute organic acids
- Fats, oils and sugars
- Mineral oils, most hydrocarbons, fuels, alcohols and salts
- Cleaning agents and detergents

**MasterSeal CR 460** has limited resistance to concentrated mineral and organic acids and alkalis. It is also attacked by aggressive organic solvents such as xylene and acetone but in practice many such solvents evaporate rapidly and cause little damage.

Extensive chemical resistance tables are available on request. For detailed information please contact your local Master Builders Solutions office for guidance.

### SUBSTRATE PREPARATION

#### Substrate quality:

All substrates must be clean and free from dust and loose particles. Concrete and other cementitious substrates must be dry (maximum moisture content 4% by CM test method). All traces of contaminants, such as oils, fats, greases, paint residues, chemicals, algae and laitance, should be removed. Steel and iron substrates must be free of rust and mill scale.

#### Preparation of substrate:

As with all surface coatings, proper surface preparation is vital to ensure the successful application and performance of **MasterSeal CR 460**.

For practical reasons, surface preparation methods will be limited to sand blasting or grinding. Wire brushing can be used but only where other methods are impracticable. Remove all dust by vacuum.

Ensure free movement of the joint by installing a joint backing rod or debonding tape. These are normally closed-cell expanded polyethylene rods.

### MIXING

#### MasterSeal P 460

Mix the two components at the supplied ratio using a slow speed stirrer (approximately 400rpm). Care should be taken to mix in any material sticking to the walls of the container.

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Use complete units only.

Using a slow speed stirrer (approximately 400rpm) mix the contents of the Part 1 pail for 30 seconds to re-disperse any separated material. Add the contents of the Part 2 can and mix for a further 1 to 2 minutes. Do not mix excessively as this traps air within the mix. Ensure that no undispersed Part 1 is left on the side of the pail.

### APPLICATION

The application temperature must be between 5°C and 40°C. The substrate temperature should be at least 3°C above the dew point. Do not apply if condensation is likely to occur before full cure occurs. Failure to observe these conditions will result in failure or a poor quality job.

- Apply MasterSeal P 460 to the substrate using a brush. A thin layer ( $\pm 100\mu\text{m}$ ) should be applied to the joint edges.
- While the MasterSeal P 460 is still tacky (30 minutes to 2 hours, depending on the temperature) pour in the mixed MasterSeal CR 460 to fill the joint flush to the surface. Use a spatula to remove trapped air. MasterSeal CR 460 can be applied on angled surfaces up to 2% without slumping.

If the MasterSeal P 460 has become tack-free, a second coat should be applied before pouring the **MasterSeal CR 460** to ensure proper bonding.

### CURING

The following table can be used as a guide:

	<b>P 460</b>	<b>CR 460</b>
Pot Life in minutes	50 – 60	100 - 120
Light Traffic		24 Hours
Full Traffic		48 Hours

### ESTIMATION

The following table can be used as a guide for the coverage of **MasterSeal CR 460**:

Size in mm	Coverage	
	Gms / LM	LM / Unit
7 x 5	55	55
10 x 6	100	30
15 x 10	235	13
20 x 10	320	9
30 x 15	720	4

### PACKAGING

**MasterSeal CR 460** is supplied as a multi-component kit as given below:

<b>MasterSeal P 460</b> Part 1	0.474 Kg
<b>MasterSeal P 460</b> Part 2	0.178 Kg
<b>MasterSeal CR 460</b> Part 1	2.822 Kg
<b>MasterSeal CR 460</b> Part 2	0.178 Kg

### COLOUR

**MasterSeal CR 460** is available in seven colours matching the UCRETE colour range:

Red, Yellow, Green, Orange, Grey, Cream, Green/Brown

### STORAGE AND SHELF LIFE

**MasterSeal CR 460** has a shelf life of 12 months from production date when stored in its original packaging at temperatures between 5°C and 25°C

### HEALTH AND SAFETY

Avoid contact with the skin, eyes and clothing.

#### On skin contact:

Wash thoroughly with soap and water.

#### On contact with eyes:

Wash affected eyes for several minutes under running water

#### On ingestion:

Drink plenty of water. Do not induce vomiting unless told to by a poison control center or doctor.

No special measures necessary if stored and handled correctly. Handle in accordance with good building materials hygiene and safety practice. When using, do not eat, drink or smoke.

### NOTE

Field service, where provided, does not constitute supervisory responsibility. For additional information contact your local Master Builders solutions representative.

Master Builders solutions reserves the right to have the true cause of any difficulty determined by accepted test methods.

# MasterSeal<sup>®</sup> CR 460

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**STATEMENT OF RESPONSIBILITY**

The technical information and application advice given in this Master Builders Solutions 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.

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**NOTE**

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

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