

## HY-SPEC - CrystalSeal

Version No. 1

Revision Date: 10/12/2017

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### DESCRIPTION

CrystalSeal is a crystal clear one part, neutral cure sealant and adhesive based on Hyspec Hybrid Technology. CrystalSeal cures to a permanently highly elastic and durable compound, suitable for almost all sealing and adhesive applications where an invisible joint is required.

### KEY FEATURES

Crystal Clear Formulation.	Solvent & Isocyanate free.
Permanently Flexible.	Low odour & no shrinkage.
Paintable*.	Can be applied to damp surfaces.
Good movement accommodation between dissimilar materials.	Excellent adhesion to a wide variety of substrates.

### USES

Suitable for many substrates including; unprimed metals, aluminium, steel, composite panels, wood, glass, plastics, concrete, mortar, plaster, epoxy and polyester coated panels, PVCu, PU, stainless steel, anodised aluminium, copper, zinc, lead, finished wood and polystyrene.

Elastic sealing applications in industrial, building and construction.	Versatile sealant for use in domestic and trade applications.
All purpose sealant, designed for internal use but can be used externally as an adhesive.	For factory, on-site or remedial applications.

### PERFORMANCE

<p><b>Adhesion:</b> Excellent.</p> <p><b>Base technology:</b> HY-SPEC Hybrid Polymer.</p> <p><b>Chemical resistance:</b> Good.</p> <p><b>Curing system:</b> Moisture Cure.</p> <p><b>Mould resistance:</b> Good.</p> <p><b>Movement accommodation:</b> ±20%.</p> <p><b>UV resistance:</b> Good†</p> <p><b>Shore A hardness:</b> 23-35.</p>	<p><b>Service temperature range:</b> -30°C to +70°C.</p> <p><b>Specific gravity:</b> 1.03 g/cm<sup>3</sup>.</p> <p><b>Elongation at break:</b> &gt;400%.</p> <p><b>Shear strength:</b> 1.00 MPa.</p> <p><b>Skin forming time:</b> ca. 30mins @ 23°C &amp; 50% RH.</p> <p><b>*Paintability:</b> CrystalSeal may be overpainted, however suitability tests should be carried out before use. If using Alkyd resin paints the drying time may increase.</p>
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### APPLICATION

#### PROPERTIES

**Application temperature range:** +5°C to +30°C.

**Curing rate:** Cures at a rate of 3-4mm in 24 hours at 23°C @ 50% RH. Lower temperatures and drier conditions will result in a slower rate of cure.

**Shelf life:** 12 months in original unopened packaging at temperatures of +5°C to +25°C.

**Skimming time:** Skin forms after approximately 30 minutes.

**Working time:** Approximately 30 minutes depending on conditions.

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### INSTRUCTIONS

**Joint design:** Please consult the *Technical Information Sheet* entitled 'Joint design for cartridge based products' prior to application.

**Surface preparation:** All surfaces must be clean, dry and free from frost, grease and loose materials. Apply primer if required. Install bond breaker to prevent bond at base of joint where necessary. Most substrates only require priming if testing indicates a need to. Cut the top of the screw thread off the cartridge and screw on the nozzle. Cut nozzle to correct diameter for joint size. Apply using a skeleton or powered gun into the joint ensuring good contact with surfaces. In deep or parallel joints, the use of backing rod should be considered to ensure good joint formation.

**Tooling:** Tool immediately after sealant has been applied within the working time for the product. In situations where an especially neat finish is required, use masking tape to cover the face edges of the joint and remove immediately once tooling has been completed.

**Cleaning:** Cured product can be removed mechanically, uncured product may be cleaned with white spirit.

### EQUIPMENT

A selection of hand & air operated guns is available for sausage application including a high power type especially suitable for filling deep voids.

### PACKAGING

Available in; 290ml cartridges, 12 per box.

Colour range: Crystal Clear.

### ESTIMATING QUANTITIES

Number of cartridges / sausages = 
$$\frac{\text{Joint depth (mm)} \times \text{Joint width (mm)} \times \text{Length (M)}}{\text{Volume of sachet (ml)}}$$
 This calculation does not allow for wastage.

### HEALTH AND SAFETY

Keep out of reach of children. Avoid contact with skin and eyes.

Please consult Product Safety Data Sheet before use.

### LIMITATIONS

Avoid exposure to high levels of chlorine or continuous water immersion.

Preliminary tests on plastics are recommended.

Avoid contact with alcohol and other solvent cleaners during cure.

Do not use for aquaria construction.

Not suitable for use in glazing applications.

Not for use with bitumen, marble or natural stone.

Do not use with plastics such as; PP, PE, PTFE or other low surface energy materials.

CrystalSeal is not suitable for use in sanitary joints.

† CrystalSeal has good UV resistance but should not be exposed to extremes of conditions.

Variations in the colour of CrystalSeal may occur in wet or extreme conditions, this does not affect the strength or durability of the product.

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### GENERAL

CrystalSeal is part of a full range of speciality sealants and tapes designed for the professional user. For further information please contact us.

*The information given in this product data sheet is based on laboratory tests and experience which we believe to be correct. Properties quoted are typical and do not therefore constitute a specification. In view of the wide range and variability of substrates, we would advise that our product should be tested by the user to establish suitability for its intended application. E &OE.*