

Code	Description	Size	Colour
19331	FixAll MS Crystal Sealant and Adhesive	300gr	Clear

1. Description

FixAll MS Crystal Sealant and Adhesive is a optically clear, neutral, elastic, single component sealant/adhesive based on MS-Polymers.

2. Characteristics

- Very easy to tool and finish
- Completely transparent (crystal clear)
- Permanently elastic after full cure
- Can be painted with water based paints and a number of other systems (preliminary test required)
- Outstanding bond strength on nearly all surfaces
- High performance mechanical properties
- Good extrudability even at low temperatures
- Ecological advantages - free of isocyanates, solvents, halogens and acids
- Minimal health and safety considerations
- Impervious to mould, contains ZnP (biocide with fungicidal action)

3. Technical Data

Base:	MS Polymer
Consistency:	Stable Paste
Curing System:	Moisture Cure
Skin Formation:	Ca. 10 min. (20°C/65% R.V.)
Curing Rate:	2 à 3mm/24h (20°C/65% R.V.)
Hardness:	38 ±5 Shore A (DIN 53505)
Specific Gravity:	1,04g/mL (DIN 53479)
Elastic Recovery:	> 75% (ISO 7389)
Temperature Resistance:	-40°C until +90°C (fully cured)
Maximum Deformation:	±20%
Elasticity Modulus 100%:	0.8N/mm ² (DIN 53504)
Tear Strength:	2,4N/mm ² (DIN 53504)
Elongation at Break:	300% (DIN 53504)
VOC (%)	50%
VOC (g/litre)	<50g/litre

**This varies according to ambient conditions such as temperature, humidity, substrate etc*

4. Applications

- Transparent and elastic bonding in many different construction and building applications.
- Invisible bonding of glass and other transparent materials.
- All interior and exterior bonding and sealing applications

5. Packaging

300gr (net content) cartridge.

6. Shelf Life

12 months in unopened packaging in a cool and dry storage place at temperatures between +5°C and +25°C.

7. Application Instructions

Surfaces

Type: All usual building surfaces such as glass, pre-treated timber, PVC, metals, stone, etc.
State: Surfaces should be clean and free of dust and grease
Preparation: Porous surfaces should be primed with Holdfast® Primer 150, Holdfast® 696 Surface Activator may be used on non-porous surfaces. We recommend preliminary compatibility tests previous to application. While producing plastics very often releasing agents, processing aids and other protective agents (like protection foil) are used. These should be removed prior to bonding. For optimum adhesion use Holdfast® 696 Surface Activator.

Joint Size

Minimum width for bonding 1mm
Minimum width for joints 5mm
Maximum width for bonding 3mm
Maximum width for joints 10mm
Minimum depth for joints 5mm

Application

Method: Manual or pneumatic caulking gun
Application temperature: +5°C until +35°C
Clean: Bulldog® Cleaner immediately after application and before curing
Finish: with soapy solution before skin formation
Repair: FixAll MS Crystal Sealant and Adhesive

Application Limitations

- Good resistance to water, aliphatic solvents, mineral oils, grease, diluted inorganic acids and alkalis. Poor resistance to aromatic solvents, concentrated acids, chlorinated hydrocarbons.
- When painted with oxidative drying paints disturbances in the drying of the paints may occur.
- FixAll MS Crystal Sealant and Adhesive must not be applied to frost-bearing surfaces or if temperature will be below freezing
- The suitability of this product, for each intended use, must be determined by the purchaser prior to acceptance
- Pre-testing for adhesion is intended to eliminate potential field problems. This testing will aid in determining the proper surface preparation method.
- FixAll MS Crystal Sealant and Adhesive may be over painted, however due to the large number of paints and varnishes available we strongly suggest a compatibility test before application. The drying time of alkyd resin based paints may increase.
- Due to the wide variety of possible substrates, Holdfast® recommends a preliminary compatibility test.
- FixAll MS Crystal Sealant and Adhesive can be applied to a wide variety of substrates. Due to the fact that specific substrates such as plastics, like polycarbonate, etc, may differ from manufacturer to manufacturer, Holdfast® recommends a preliminary compatibility test.
- Do not use in applications where continuous water immersion is possible or in sanitary applications.
- FixAll MS Crystal Sealant and Adhesive displays very good UV stability but may discolour in extreme conditions or after many years of exposure.
- This product can not be used as a glazing sealant.
- Bonding plastics like PMMA (ie Plexi® Glass), polycarbonate (ie Makrolon® or Lexan®) in stress loaded applications can give rise to stress cracking and crazing in these substrates. The use of FixAll MS Crystal Sealant and Adhesive is not recommended in these applications.
- There is no adhesion on PE, PP and PTFE (Teflon®). Holdfast® recommends a preliminary compatibility test.
- Some plastic or rubber based materials including Pipe Flashings may degrade the sealant due to the plasticizers used in the manufacture of these plastic materials. Please contact Holdfast NZ for suitable alternatives.
- Not suitable for expansion joints
- The sanitary formula should not replace regular cleaning of the joint. Excessive contamination, deposits or soap remaining will stimulate the development of fungi.

Holdfast recommends preliminary compatibility tests on surfaces on which PU Foams have not been applied previously.

8. Maintenance and Inspection of Weather-Tightness Sealant Joints

Applies to the following joint types:

- Linear joints
- Penetration seals

Inspection

Holdfast recommends that the first inspection of joints is done 6 months following application, followed by an annual inspection. Normally this inspection is combined with the inspection of the painting. The most effective is to judge the joints during a colder season as building materials shrink the most under low temperatures, resulting in the widest joints. This period is best to judge if the sealants are still able to cope with the pressure, and if detachments appear.

During inspection specifically pay attention to:

Detachments in facades of buildings can result into leakage. When leakage is noticed but the exact cause and location is unclear, the exact spot should be found by testing. We have two methods for this test:

- Test with a (garden) hose. With a hose the facade can be sprayed. While doing this we work downward towards above, while the inside is checked on water entering the building. When no leakage is found this way, the possibility exists the leakage will only appear when rain and wind pressure are combined at the same moment.
Wind pressure causes over pressure on the outside while under pressure on the inside appears. This can cause water to be sucked inside through very small openings. With higher building the water can be pushed up and find its way into buildings.
- Test with a smoke pipe. With a smoke pipe possible leakages can be identified more easily, especially when wind pressure occurs.

9. Health and Safety Recommendation

- Apply the usual industrial hygiene.

Remark

The directives contained in this documentation are the result of our experiments and of our experience and have been submitted in good faith. Because of the diversity of the materials and substrates and the great number of possible applications which are out of our control, we cannot accept any responsibility for the results obtained. In every case it is recommended to carry out preliminary experiments.

If any clarification is required, please contact Holdfast Technical Services or email sales@holdfast.co.nz.

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