



# TECHNICAL DATA SHEET

## PRO-BOND 2000 (MS POLYMER)

### Description

**Construction Chemicals Pro-Bond 2000** is a universally applicable flexible construction adhesive and sealant, based on MS-Polymer. Used in the Construction, Glazing, Oak Framing, Flooring, Motor and marine industry this product gives a flexible seal and bond to most materials. Permanently elastic, single-component sealant/adhesive, especially for invisible sealing. Free of solvents, PVC, silicones and isocyanates.

**Pro-Bond 2000 Crystal Clear** has been developed for ambitious optical applications. The brilliant transparency enable invisible joint between various materials. Advances in this specific technology and recipe details are responsible for a very low yellowing tendency (outstanding UV and aging stability at 50°C) this is the basis for a long lasting functionality and representative appearance.

### Properties

**Construction Chemicals Pro-Bond 2000** will adhere without primer on many solid, non absorbent, and absorbent dry, clean, dust and grease free substrates, such as metals, glass, primed or painted wood, UPVC, glazed surfaces, masonry, brick, epoxy and polyester. **Construction Chemicals Pro-Bond 2000** contains no solvents or isocyanates. It has excellent UV and weathering resistance and does not cause corrosion in metal connections. There is no odor during application or after curing.

**Construction Chemicals Pro-Bond 2000** cures under influence of air humidity to a permanent elastic rubber with good ageing properties. Temperature resistance from -40°C to above +100°C. Compatible with most conventional paint systems. Resistant to sea water.

**Pro-Bond 200 Crystal Clear** is a fast curing system with a short tack free time, thus contamination and dust formation can be avoided or minimized. The mechanical properties (good strength in combination with high elasticity) allow the use as well as adhesive and sealant.



The Oak Frame Company uses **Pro-Bond 2000** on all oak panels and glazing situations. This product has proved to out perform all silicone based products.

## **Bonding**

Lacquered wooden and synthetic formed strips.  
Plasterboards and lacquered wooden wall panels.  
Insulation sheets on many substrates.  
Thresholds and windowsills of lacquered wood and metal.  
Gypsum ornaments, decorative strips, dado rails.  
Lead strips.  
Fixing concrete and terracotta tiles.  
Mirrors and glass.

## **Special Properties**

- Optically brilliant, crystal clear appearance
- Excellent UV stability (no yellowing after > 5000h exposure to artificial light according to ASTM G26/DIN/ISO 4892-2)
- Good durability
- Fast tack free time, dry surface in less than 60 min
- Low odor
- Neutral curing, not corrosive
- Low volume shrinkage
- Permanently elastic, high elongation in combination with good strength
- Ideal stringing, non sagging, thixotropic
- Good tooling properties, use of soapy solutions possible (without turbidity)
- Exempted from hazardous labeling; free of solvents, isocyanates, silicones and PVC
- Good adhesion on glass, metals and a variety of other substrates
- Frost-resistant
- High compatible with paint systems

## **Sealing**

Oak framing and glazing.  
Roof edges, clamping profiles.  
Joints at aluminum and other synthetic frames.  
Connecting joints at aluminum gutters, verandas and sun lounges.  
U-PVC windows.  
Seam sealing in automotive industry.

## **Below ground Tanking**

**Construction Chemicals Pro-Bond 2000** is an integral part of the Construction Chemicals tanking system where it is used in the sealing of service pipes and cables.

## **Marine Industry**

Adhering/sealing together of prefabricated fiberglass hulls and decks in combination with rivets. Originally mastic was used plus a silicone sealant. **Construction Chemicals Pro-Bond 2000** can do both jobs. **Marine windows.** An aluminum trim was originally fixed using a 2-part resin adhesive. **Construction Chemicals Pro-Bond 2000** eliminates waste of cured material and makes application easier. Used in general fittings.

## **Method of Use**

### **Joint Sealing**

**Construction Chemicals Pro-Bond 2000** can be applied easily using a 310mm cartridge gun. Smoothing off the joints can be done with a wetted pointing trowel. For the correct joint dimension a backing foam should be used, assuring that the joint depth is 2/3rd from the joint width. Both the joint width and the depth should be at least 6 mm, depending on the substrates and joint distances.

## **Bonding.**

Advantages versus Silicone (Acetoxy); low odor, non corrosive/neutral curing=> use on metals, porous materials possible, low volume shrinkage with time, compatible with various paints.

Advantages versus Polyurethane; better ageing and UV stability, higher transparency, no bubble formation, environmentally friendly, good thixotropy.

Advantages versus Acrylic; low volume shrinkage upon curing, adhesion on glass and various substrates, fast curing, higher elasticity and elastic recovery, frost resistant.

## **Technical Data**

<u>Technical Property</u>	<u>Typical value</u>
Skin over time at 23oC, 50% r.H.....	10 min
Tack free time .....	< 60min
In depth cure 23oC, 50% r.H.....	2mm within 24h
Density DIN 52451 PY .....	1,05 g/cm3
Volume shrinkage DIN EN ISO 10563 .....	< 4%
Shore A hardness after 28d DIN 53505 .....	25 units
Secant tensile modulus at 100% elongation DIN EN ISO 8339 / DIN 52455.....	0,40 N/mm2
Tensile strength DIN 52455 .....	0,6 N/mm2
DIN 53504 (S2 7d) .....	2 N/mm2
Elongation at break DIN 52455 .....	200%
DIN 53504 (S2 7d) .....	500%
Elastic recovery DIN EN ISO 7339 B with 100% elongation .....	85%
Max. movement capability .....	25%
Application temperature .....	+5oC - + 30oC
Temperature stability .....	-40oC - +90oC
Shelf life .....	9 months

*These figures are intended as a guide and should not be used in preparing specifications*

## **Yield**

290ml of sealant is sufficient for 12 metres of joints measuring 5 x 5 mm or about 3 metres of joints measuring 10 x 10 mm

## **Health and Safety Precautions**

Avoid skin and eye contact.

Handle only when wearing protective clothing.

Wash splashes from skin with soap and water, flush eyes with copious amounts of water and seek medical attention if irritation persists.

For full health and safety information see our Safety Data Sheet.

**Storage:** Between 5 °C-30°C.

**Shelf Life:** 12 months unopened.

**Practical Coverage:** 11 running metres per cartridge – 5 mm<sup>2</sup> bead.

Elongation at break (DIN 53504/ISO37) 200%

Skin forming 30 minutes

Tack Free time @ 25°C 50% R.H. 4hrs

3mm per 24 hours as a sealant

Movement accommodation 20%

