

**TECHNICAL DATA**

<b>Polymers and curing system:</b>	<b>MS Polymer, alcoxyl</b>
<b>Consistency:</b>	paste
<b>Application temperature:</b>	+5°C / +35°C
<b>Colour:</b>	translucent
<b>Specific weight:</b>	1.09 kg/dm <sup>3</sup>
<b>Viscosity 23°C (Brookfield spin.6 speed.5 rpm):</b>	150.000 mPa.s
<b>Open time:</b>	10 min. approx.
<b>Pressing time:</b>	2 - 6 hours approx. (depending on application)
<b>Final bond strength after 7 days (EN205):</b>	4 N/mm <sup>2</sup> (40 Kg/cm <sup>2</sup> )
<b>Shore A hardness:</b>	50
<b>Modulus at 100% (DIN 53504):</b>	2 - 2,3 MPa
<b>Tensile strength (DIN 53504):</b>	3 - 3,5 MPa
<b>Elongation at break:</b>	200 %
<b>Tear resistance (ASTM D 624-73):</b>	15 N/mm
<b>Curing speed (20°C 50% R.H.):</b>	2 mm at 24 h.

The values in this table must not be considered as specifications

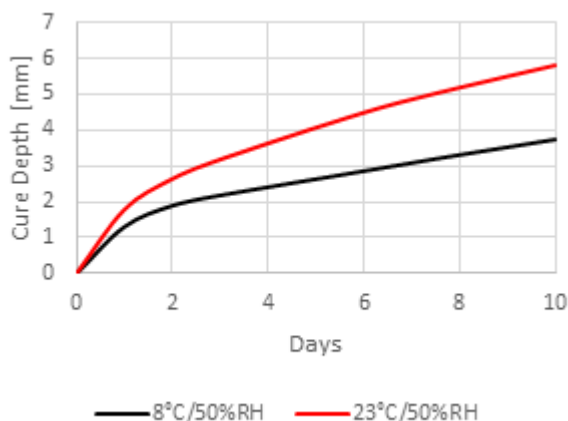
**PRODUCT**

Modified silane polymers adhesive, one part, liquid, volatile contents and isocyanates free

**PRODUCT CHARACTERISTICS**

It hardens due to moisture and forms a strong, very elastic, flexible and water resistant film. Non swelling, can be overpainted. Available in cartridge, easy to extrude, excellent sealing and water barrier properties.

- Isocyanate and solvent free.
- Almost no shrinkage.
- Neutral reaction, odourless
- Very fast setting time.
- Excellent adhesion to a wide range of products
- Flexible to low (-40°C) e high (+100°C) temperatures.
- Paintable

**APPLICATIONS (professional use)**

- Suitable for elastic bonding subjected to heavy stress, impacts, vibrations, thermal shocks of rigid, semirigid and flexible materials— even of different types – both indoors, with frequent and brief exposure to water and/or high humidity, and outdoors, provided there is no direct exposure to the elements.
- Wood-to-wood bonding, including painted wood, as well as concrete, bricks, plaster, plastic laminate, glass, fibreglass, polystyrene (rigid PVC subject to prior testing).
- In the production of sandwich panels, bonding of polystyrene, polyurethane, and expanded PVC to stainless steel sheets (galvanised steel subject to prior testing), aluminium, and anodised aluminium.
- Production of doors, panels, components for home furnishings and commercial environments, bathroom and kitchen furniture, and, more generally, interior fittings for vehicles.
- Suitable when, in addition to bonding, sealing of the joint between the substrates to be joined is also required.

**LIMITATIONS**

- Applications involving continuous immersion in water must be verified with the technical department of Fratelli Zucchini S.p.A.
- Not suitable for joints inside swimming pools or in adjacent areas with continuous contact with pool water.
- It must not be used for items that come into contact with food, or with materials that ooze oily substances or plasticisers.

**Fratelli Zucchini S.p.A.**

Via C. Colombo, 6  
44124 Ferrara - Italy

Tel. +39 0532 782711 - [info@zucchini.it](mailto:info@zucchini.it) - [www.zucchini.it](http://www.zucchini.it)

AZIENDA CON SISTEMA  
DI GESTIONE QUALITÀ  
CERTIFICATO DA DNV GL  
= ISO 9001 =



- Furthermore, it must not be applied in completely enclosed spaces, with no exposure to atmospheric humidity.
- Do not use in extreme temperature conditions, or on damp, frozen, contaminated surfaces. Do not use on excessively acidic or basic substrates.
- Not suitable for use on natural copper.

**APPROVALS**

**MS SPECIAL N** has been tested and classified by **EUROFINS** according to: Indoor Air Comfort GOLD 6.0 of February 2017

**METHOD OF USE**

**Adhesion and surface preparation:** Surfaces must be clean and dry, and in particular, free of greases, oils, and surface oxidation. Rough if necessary and then remove residual dust with air (and solvent **ST 121** on plastics and metals).

**MS** It offers excellent adhesion without the use of primer on degreased surfaces of steel, stainless steel, galvanised and chrome-plated steel, aluminium and anodised aluminium; on painted surfaces in general (subject to prior testing); and on concrete, wood, glass and glazed surfaces, ceramic, polyester fibreglass, UPVC, ABS, polystyrene, and methacrylate.

The expanded materials and the fibreglass must be well cured and free from residual by-products.

In the case of painted surfaces, given the wide variety of paints available on the market, it is advisable to check prior to application whether a primer is required. More detailed information on surface preparation can be found in the "Primer for MS sealants" sheet.

**Application:** **MS CLEAR** It can be applied with a special gun on only one of the surfaces to be bonded. Couple and if necessary reposition within 5 minutes.

A thin film of adhesive can also be applied with a spatula to one of the parts to be joined, in an amount sufficient to wet the other surface – generally 200 to 300 g/m<sup>2</sup>. On wood and porous surfaces it is generally recommended to spread the amount indicated onto both parts.

The adhesive cures with moisture from the air and the substrates; therefore, the timescales quoted may vary depending on environmental conditions. When bonding materials lacking surface moisture or when joining large surfaces of non-porous materials – such as in the case of bonding sheet metal to foam materials in the production of insulation panels – it is recommended to lightly mist water (approx. 2–6 g/m<sup>2</sup>) onto the adhesive before joining the parts.

Join the parts within 5–10 minutes of applying the adhesive, depending on environmental conditions (use shorter times in the presence of high humidity and temperature, or if using the water misting method), applying adequate pressure – at

least 6 kg/cm<sup>2</sup> for bonding wood to itself or to compact, resistant materials. In the case of sandwich panels with foam material, it is sufficient to ensure good contact between the two surfaces, typically by pressing at 0.3–0.7 kg/cm<sup>2</sup>. This pressure should be maintained for 2 to 6 hours before handling, depending on environmental conditions, the type and shape of the materials, and the size of the bonded area. Full curing of the adhesive will occur in approx. 48 hours, again depending on environmental conditions and the materials used. **MS CLEAR** can also be applied as a contact adhesive for a quicker bond: after spreading a thin layer over the entire bonding area, wait 5–10 minutes, then join the parts by applying firm pressure for a short period of time. If necessary, keep the glued parts together until the adhesive has set.

**Paintability:** It should be kept in mind that any overpainting can modify the surface elastic properties of the sealant and its ability to flex with movement and may compromise the functionality of the joint. The compatibility of the sealant with the paint must first be verified by testing. Aesthetically pleasing results can generally be achieved by applying the paint after the sealant has hardened completely.

**Cleaning:** soiled tools of **MS CLEAR** can be cleaned with Solvent **ST/512**. Once cured, it can only be removed mechanically.

**Instructions:** In view of the broad and varied selection of materials on the market, before proceeding with bonding in production, verify that the result obtained meets the characteristics required for the product.

**SAFETY AND HEALTH**

See Technical Data Sheet

**STORAGE**

- cartridge 290 ml, 18 months from production date.
- Drum 25 Kg. 12 months from production date. Store in the original pack, in a dry place at a temperature range +5°C e +25°C.. The product may become more viscous during storage.

**PACK**

Code	Colour	Packaging	Unit
1004825	translucent	cartridge 290 ml	12

Other sizes available on request

**Fratelli Zucchini S.p.A.**

Via C. Colombo, 6  
44124 Ferrara - Italy

Tel. +39 0532 782711 - [info@zucchini.it](mailto:info@zucchini.it) - [www.zucchini.it](http://www.zucchini.it)

AZIENDA CON SISTEMA  
DI GESTIONE QUALITÀ  
CERTIFICATO DA DNV GL  
= ISO 9001 =



Le raccomandazioni relative all'applicazione e all'uso dei prodotti Fratelli Zucchini S.p.A. sono indicate sulla base della conoscenza ed esperienza di Fratelli Zucchini S.p.A. per i prodotti conservati, manipolati e applicati in condizioni idonee, come indicato sulla Scheda Tecnica. La variabilità dei materiali, substrati e condizioni d'uso è tale che nessuna garanzia della funzionalità d'uso per una particolare applicazione può essere desunta da questa informazione, da raccomandazioni scritte o verbali o da qualsivoglia tipo di consiglio fornito. Ciascun utilizzatore ha la responsabilità di effettuare adeguate valutazioni sulla rispondenza del materiale offerto da Fratelli Zucchini S.p.A., dei suoi prodotti, servizi, raccomandazioni e suggerimenti alla specifica necessità applicativa, e deve mettere in atto test sufficienti ad assicurargli che il proprio prodotto finito risulterà sicuro e adatto per l'impiego dell'utilizzatore finale. Fratelli Zucchini S.p.A. pertanto non può essere ritenuta responsabile per alcun danno diretto o indiretto, anche per un eventuale uso errato, non corretto, inidoneo dei prodotti.