TECHNICAL DATA SHEET

MS TECHNO FR

Revision: 13/03/2025

TECHNICAL DATA

Polymers and the curing system:	MS Polymer, alcoxy
Consistecy:	Paste
Application temperature:	+5°C to +35°C
Specific weight:	1,5 kg/dm³
Shore A hardness:	50 - 55
Modulus 100% (DIN 53504):	1,8 - 2,5 MPa
Breaking load (DIN 53504):	2,5 - 3,0 MPa
Elongation at break:	120 - 180%
Tear strength (ASTM D 624-73):	9 N/mm
Skin formation time (20°C @ 50% RH):	10 - 20 minutes approx.
Curing speed (20°C @ 50% RH):	2 - 3 mm after 24 hrs.

Values given in this table must not be considered as specifications.

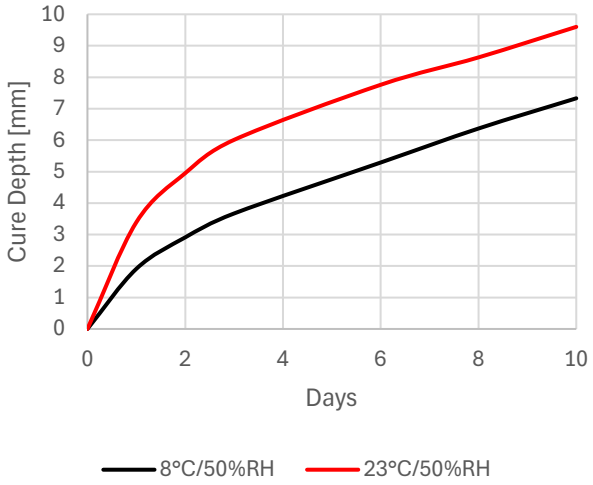
PRODUCT DESCRIPTION

Fire-resistant one component moisture curing adhesive sealant, based on **MS Polymer.**

PRODUCT CHARACTERISTICS AND USES

Certified for exterior and interior sealings in the railway sector according to **45545-2: 2015.**

MS TECHNO FR exhibits high elastic and cohesive properties; it is suitable for high performance bonding and elastic joints and provides excellent adhesion to a wide variety of surfaces. Due to its high filling power, **MS TECHNO FR** is particularly suitable for adhesive joints between irregular surfaces.



- Solvents and isocyanates free.
- Virtually no shrinkage.
- Flexible at low (-40°C) and high (+100°C) temperatures.
- Neutral, odorless reaction.
- Certified **EN 45545-2: 2015 by LAPI.**
- Compatible with many painting systems.
- Excellent adhesion to a wide variety of substrates.
- Excellent aging resistance.

PROFESSIONAL USES

- Internal and external sealing requiring flame retardancy in rail vehicles for risk levels **HL1 - HL2** set of requirements **R22 and R23.**
- Bonding of panels for walls and fire resistant ceilings, gypsum, plastic laminate, rigid PVC, fiberglass boards to metal frames and structures.
- Bonding of the overlaps between metal sheets, metal to metal or other substrates bonding when it is not possible to perform welding or other mechanical fasteners.
- Bonding of reinforcing ribs on steel panels and generally in structures subjected to continuous vibration or between materials with different thermal expansion.
- Insulation coatings of containers, vehicles or vans.

LIMITATIONS

- Applications in water continuous immersion have to be double checked with Fratelli Zucchini S.p.A. Technical Area.
- Not suitable for joints in swimming pools and adjacent areas that are in continuous contact with pool water.
- It must not be used for items that come in contact with food, or with materials that ooze oily substances or plasticisers.

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COMPANY WITH QUALITY SYSTEM CERTIFIED BY 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 TECHNO FR complies with the requirements of EN 45545-2: 2015 hazard levels HL1 And HL2 for requirements set R22 and R23 TEST REPORT **NO 209.1IS0040/20.**

- Burning behaviour by oxygen index EN ISO4589-2.
- Smoke generation-Optical density by a single-chamber test EN ISO 5659-2.
- Analysis of combustion gases NF X 70-100-1 and -2.

METHOD OF USE

Adhesion and surface preparation: MS TECHNO FR allows excellent adhesion without the use of Primer on the degreased surfaces of steel, galvanized steel, anodized aluminum, aluminum, concrete, wood, glass and glazed surfaces, ceramic, polyester, UPVC.
On painted surfaces you should check whether you need **PRIMER WPX.**
For special operating conditions, such as the presence of moisture, or on porous surfaces, the adhesion can improved by applying a special primer.
More detailed information on surface preparation are contained in the selection chart **"Primer for MS sealants".**

MS TECHNO FR can be applied by gun on one of the surfaces to be bonded. The coupling under light pressure should be performed within 10 - 15 minutes from the application.
To allow the proper curing of the adhesive and exploit the most cohesive and adhesive properties, the right thickness after pressing should be not less than 1 - 2 mm.
When bonding large surfaces the adhesive can be applied in a discontinuous way in parallel curbs 20 - 40 cm away the one from the other and along the perimeter, in proper section to fill any irregularities.
Since the hardening takes place due to moisture, to speed up the process, especially for bonding nonporous materials, it is possible to humidify the parts spraying water before assembling. Join under adequate pressure within 5 minutes.
If necessary, maintain pressure on the glued parts until it has developed the adhesive set. In the case of use for finishing sealing, smooth within 10 minutes.

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: tools used to apply **MS TECHNO FR** can be cleaned with **ST 512** solvent.
Once cured **MS TECHNO FR** can only be removed mechanically.

SAFETY AND HEALTH

See Safety Data Sheet.

STORAGE STABILITY

290 ml. cartridge 18 months from the date of manufacture.
600 ml bag. 18 months from the date of manufacture.
25 kg drum 12 months from the date of manufacture.

Store the sealed product in the original packaging, in a dry place at a temperature between +5°C and +25°C.
The product may become more viscose during storage.

PACKAGING

Code	Colour	Packaging	Pcs./box
1004324	grey	290 ml. cartridge	24
1004412	white	290 ml. cartridge	24

Other sizes available on request

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