ADINOX®
METAL BONDING SOLUTIONS

Technical Data Sheet

ADINOX® MS40

TDS-MS40-001 | v2.0 | Last revision: 13-06-2026

Description

ADINOX® MS40 is a high-quality multipurpose adhesive sealant. It is free of isocyanates, solvents, and silicone, making it non-corrosive. It cures with ambient moisture, becoming a highly stable elastomer resistant to UV rays and ozone, with excellent adhesion to most materials used in the body shop, automotive, and construction industries.

ADINOX® MS40 is a fast-curing system that is odorless, bubble-free, and shrink-free; it can be applied on damp surfaces, even underwater, and is non-corrosive to metals.

Applications

Bonds and seals the most common substrates including:

Metals: Aluminum, stainless steel, carbon steel, galvanized steel, brass

Construction: Wood, concrete, glass, concrete and clay tiles, stone

Plastics: Polyester, PVC, fiberglass, ABS, and more

Typical Applications: Joint sealing in construction, structural bonding in automotive and body shop industries, marine applications, expansion joints, general repairs.

Physical properties of the product

Property	Typical Value
Color	White, Gray, Black
Consistency	Paste
Density	1.42 g/ml
Viscosity (Brookfield, 73°F)	280,000 ± 50,000 mPa·s
Solids Content	100%
Flash Point	>212°F
pH	Not applicable
Curing System	Atmospheric moisture

Application times

Skin Formation: 20 min

Time until surface is tack-free

Handling Time: 4 hours

Minimum time before subjecting to gentle movements

Cure Depth: 1/8 in/24 h

Cure speed from surface inward

Functional Cure (50%): 24 hours (for 1/8 in thickness)

Complete Cure (100%): 48–72 hours

Time to reach 100% of properties (depending on thickness and humidity)

Physical properties of cured product

Property	Typical Value
Skin Formation, Surface Cure	20 min at 73°F and 55% R.H.
Cure	1/8 in/24 h at 73°F and 55% R.H.
Shrinkage	None
Allowable Deformation	20%
Shore A Hardness (DIN 53505)	40
Modulus at 100% (DIN 53504)	94 PSI
Tensile Strength (DIN 53504)	223 PSI
Elongation (DIN 53504)	350%
Temperature Resistance	-40°F to +212°F

Chemical resistance

Property	Value
Resistance to Acids and Bases	Excellent
UV Resistance	Excellent
Water and Saltwater Resistance	Excellent

Material compatibility

Substrate	Result
Concrete	✓
Wood	✓
Aluminum	✓
Carbon steel	✓
Stainless steel	✓
Galvanized steel*	✓
Copper	O
Bronze	O
Carbon fiber	✓
Ceramic	✓
Marble	✓
Porcelain	✓
Polycarbonate (PC)	O
PVC	O
Acrylic (PMMA)	O

Legend: ✓ Compatible · O Compatible with primer · ✗ Not recommended

*Galvanized steel compatibility has been evaluated on G60, G70, and G90 grades. Due to variations in coating thickness, surface treatment, oiling, passivation, and storage conditions, the user must verify performance on their specific substrate.

Storage and shelf life

In its original unopened container, stored in a cool, dry place between +41°F and +77°F, the product will last up to 15 months after the production date.

Presentations

Standard Cartridges: 9.8 fl oz (290 ml) - Compatible with standard gun

Sausages: 20.3 fl oz (600 ml) - Requires pneumatic or manual gun

Available Colors: White, Gray, Black (special colors upon request)

Yield

Nozzle Tip Ø (in)	5/64	1/8	5/32	3/16	1/4	9/32	5/16	11/32	3/8
Per 9.8 fl oz cartridge (ft)	301	133	76	48	33	24	17	14	11
Per 20.3 fl oz sausage (ft)	623	279	154	98	69	49	36	30	23

Directions for use

Application conditions: Between +41°F and +104°F (ambient and surface)

Surface preparation: 1) Surfaces must be clean, dry, dust-free, grease-free, and contaminant-free. 2) Degrease the surface thoroughly with acetone or isopropyl alcohol. 3) Use an appropriate brush to remove any loose particles. 4) Ensure proper joint dimensions for correct movement absorption.

Recommended joint dimensions

For joint sealing: Width minimum 1/4 in | optimum 3/8–9/16 in | maximum 1 in. Depth minimum 1/4 in | optimum 5/16–1/2 in | maximum 9/16 in.

Paint compatibility

After skin formation, ADINOX® MS40 offers optimal compatibility with emulsion paints. However, synthetic paint systems may dry slowly. If painting is planned, we recommend lightly sanding the ADINOX® MS40 and adjacent parts with an abrasive pad, then thoroughly degreasing with isopropyl alcohol and painting immediately afterward. We recommend checking the adhesion and compatibility of the material and paint beforehand.

Cleaning

Uncured Material: Remove from surfaces and tools with acetone or isopropyl alcohol.

Cured Material: Can only be removed mechanically (cutting, sanding).

Cartridge Nozzle: Clean after each use or cut the hardened tip on next use.

Limitations and recommendations

Not suitable for permanent immersion under continuous hydrostatic load or structural expansion joints. Not suitable for PE, PP, PTFE, neoprene, or bituminous surfaces. For PC and PMMA use ADINOX +217 primer. Discoloration may occur from direct contact with chemicals, applications in dark spaces, or plasticizer migration from the surface.

Legal information and liability disclaimer

The data is provided for informational purposes only and in accordance with studies conducted; it is obtained by following application instructions and under optimal product conditions. ADINOX guarantees that its products meet published specifications at the time of sale, when stored and applied correctly according to these instructions. ADINOX assumes no responsibility for defects caused by improper storage, application outside specified conditions, use in non-recommended applications, incompatibility with untested materials, or results from mixtures with other manufacturers' products. ADINOX's liability is limited to the value of the product supplied and it will not be liable for consequential damages, production losses, or loss of profit.

Test methods applied

DIN 53504 — Rubber testing: determination of tensile strength at break, tensile stress at yield, elongation at break, and stress values. DIN 53505 — Rubber testing: Shore A and Shore D hardness.

Validation recommendation

User responsibility: the performance of ADINOX® MS40 is proven and approved under controlled conditions. Conditions in each project may differ due to factors that are not always visible —surface treatments, coatings, passivations, oils, or finishes— that affect adhesion. Therefore, before large-scale application the user must validate the product on their actual substrate and conditions: confirm adhesion and compatibility on the project's specific substrate; verify behavior in the service environment; confirm suitability for the intended application; and ensure personnel are trained in correct handling.

Units of measurement and glossary

International system / imperial equivalents

1 MPa (Megapascal)	= 145.04 PSI
1 PSI (lb/in²)	= 0.00689 MPa
1 N/mm²	= 1 MPa = 145.04 PSI
1 kg/cm²	= 14.22 PSI = 0.098 MPa
1 mm	= 0.0394 in
1 in	= 25.4 mm

1 ml	= 0.0338 fl oz
1 fl oz	= 29.57 ml
1 g/ml	= 8.345 lb/gal
°C → °F	°F = (°C × 9/5) + 32

Acronyms glossary

PSI	Pounds per Square Inch
MPa	Megapascal (SI pressure unit)
cP / mPa·s	Centipoise / Millipascal second (viscosity)
R.H.	Relative Humidity
UV	Ultraviolet
VOC / COV	Volatile Organic Compounds
DIN	German Institute for Standardization
ISO	International Organization for Standardization
ASTM	American Society for Testing and Materials
NOM	Official Mexican Standard
NMX	Mexican Standard (voluntary)

Technical terms

Open Time	Time period to assemble before polymerization
Working Time	Time without moving parts to achieve adhesion
Skin Formation	Time until tack-free to touch
Elongation	% of stretch before rupture
Modulus at 100%	Stress needed to elongate 100%
Shore A Hardness	Penetration resistance in elastomers (0–100)
Tensile Strength	Maximum force before rupture when stretching
Cohesive Failure	Rupture within the adhesive (good adhesion)
Substrate Failure	Material rupture, not adhesive
Thixotropic	Does not drip at rest, flows when applied