

4045

Spreadable SMP



Technical data sheet

Version: V0 - 10-2025

1. Properties

- SMP | free of silicone, isocyanate and solvents
- RTV1 compound
- odourless
- virtually shrink-free cross-linking
- particularly resistant to UV rays, ageing and weathering
- excellent adhesion to various materials
- adheres even to damp surfaces
- temperature resistance at long term exposure from -40 °C to +110 °C
- EMICODE® EC 1^{PLUS} ‚very low emission‘

2. Areas of application

- For large-area applications in boat, yacht and shipbuilding.
- For use in the lowest deck covering, on plank decks, in outdoor areas and for interior fittings.
- Flexible, full-surface bonding of various materials such as metal, wood, GRP and many plastics with different expansion rates.
- Ideal for bonding metal to plastic.

3. Technical data

CTM*	Standard	Feature	Unit	Value
		Base		SMP
		Curing mechanism		RTV 1
		Skin formation time at +23 °C 50% RH	mins	~ 17
		Full curing time at +23 °C 50% RH	mm/24 hrs	~ 2.00
	EN ISO 1183-1	Density	g/cm ³	~ 1.49
	DIN EN ISO 868	Shore A hardness		~ 52
	EN ISO 10563	Volume shrinkage	%	~ 3.00
		Initial tack		medium
	DIN 53504-S2	Elongation at break	%	~ 185
	DIN 53504-S2	Tensile strength	N/mm ²	~ 2.20
	DIN 53504-S2	Modulus of elasticity 100%	N/mm ²	~ 1.70
	DIN ISO 34-1	Tear resistance	N/mm	~ 9.60
		Temperature resistance (long term exposure)	°C	-40 to +110
		Processing temperature	°C	+5 to +35
f-1-0/g-1-0		Shear stress 51/s	Pa	~ 3800
f-1-0/g-1-0		Viscosity 51/s	Pa·s	~ 75
	DIN EN ISO 8394-1	Extrusion rate 310 ml cartridge	g/min	~ 123
		Electrical conductivity (volume resistance)	Ω·cm	> 1 x 10 ¹⁰
		Thermal conductivity	W/(m·K)	~ 0.39
		Colours		White, grey, black
		Packaging		Barrel, hobcock, 400 & 600 ml film bag, 310 ml cartridge
		Shelf life		Barrel/hobcock: 6 months Film bag/cartridge: 18 months (when stored in a cool and dry place in the original container)

* Corporate Test Method | CTM copies available on request

4. Substrate preparation

The adhesive surfaces must be stable and free of dust, oil and grease. On non-absorbent substrates, pre-cleaning with 828 Basic Cleaner is recommended. For sensitive surfaces, compatibility should be checked in advance to avoid surface damage. If necessary, carefully pre-treat the adhesive surfaces with a suitable primer. Sanding with fine abrasive fleece can further improve adhesion on smooth surfaces.

Substrate*	Pre-treatment
ABS Metzoplast ABS 7 H	828 Basic Cleaner Primer 100
Aluminium	828 Basic Cleaner
Aluminium 6016	828 Basic Cleaner
Aluminium AlCuMg1	828 Basic Cleaner
Aluminium AlMg1	828 Basic Cleaner
Anodised aluminium	828 Basic Cleaner
Brass Ms63 hardness F37	828 Basic Cleaner
Concrete wet, polished	free of dust
Concrete formwork smooth	free of dust
Copper	828 Basic Cleaner
GFK	828 Basic Cleaner
Glass	828 Basic Cleaner
PC Makrolon Makroform 099	828 Basic Cleaner
PET	828 Basic Cleaner
PMMA Röhm sanitary grade	828 Basic Cleaner Primer 100
Polyacrylic PMMA XT 20070 Röhm ^{*1}	828 Basic Cleaner Primer 40
Polystyrene PS Iroplast	828 Basic Cleaner Primer 100
PU cutting quality	828 Basic Cleaner
PVC Kömadur ES	828 Basic Cleaner
PVC soft	828 Basic Cleaner
Stainless steel	828 Basic Cleaner
Steel DC04	828 Basic Cleaner
Steel hot-dip galvanised	828 Basic Cleaner
Tile	828 Basic Cleaner
Zinc	828 Basic Cleaner

* On substrates not listed in this table, the processor must always carry out preliminary tests to check the suitability of the product. This table is based on adhesion tests carried out on test specimens from Rocholl under laboratory conditions. In practice, adhesive properties depend on a variety of external influences (weather, contamination, etc.). Therefore, this table is for guidance only and does not constitute a binding statement. The tests carried out above refer only to adhesive properties and are not indicative of compatibility with the substrates mentioned.

*1: Different types of PLEXIGLAS® show certain differences in their chemical resistance. In some applications, the formation of stresses must be expected. These stresses, in combination with certain agents, can lead to 'stress cracking'. The duration of exposure, temperature and concentration of the acting substance have a fundamental influence on the possible 'stress cracks'. When using our products in combination with PLEXIGLAS®, the suitability must therefore be checked in advance.

*2: Compatibility with a wide variety of mirror coatings from different manufacturers is regularly tested in our laboratory. Due to the manufacturing processes of different manufacturers, which are not known to us in detail, and depending on the existing substrate and bonding variants, preliminary tests are recommended.

5. Processing

General information: 4045 can be processed at substrate and ambient temperatures between +5 °C and +35 °C. The ideal processing temperature is about +20 °C. The viscosity of the uncured material is temperature-dependent, meaning that viscosity increases at low temperatures and decreases at high temperatures. In addition, a variety of external influences, such as humidity, UV exposure, chemical influences, high temperatures, etc., must be taken into account. These and other factors can have a significant effect on the material properties of the product and its shelf life. The expiry date stated on the product must be strictly adhered to, as the product properties can no longer be guaranteed if this date is exceeded. Good ventilation must be ensured during processing and curing.

Processing: Before application, the processor must ensure that all materials that come into contact with the product do not cause any incompatibilities. For large-area bonding, 4045 can be applied using a notched trowel, but must not be smoothed. We recommend using TBK B12 notching for this purpose. Depending on the size of the application area, the formation of the vulcanisate and the build-up of adhesive strength may be delayed. When working on large areas of vapour-proof substrates, one of the adhesive surfaces must be moistened with dew. The addition of moisture and higher temperatures accelerate the curing speed. 4045 must be applied in such a way that the split products released during cross-linking can escape via the adhesive bed. The substrates must be joined together within the skin formation time.

Removal: Uncured 4045 can be removed with 502 Surface Cleaner or 504 Universal Cleaning Wipes, while cured material can only be removed mechanically. If it comes into contact with the skin, it must be cleaned immediately.

6. Application restrictions

- Avoid contact with bitumen-containing and plasticiser-releasing materials, such as butyl, EPDM, neoprene, etc.
- Not suitable for backfilling to a depth of more than 15 mm.
- Without pre-treatment, no adhesion to plastics with low-energy surfaces, such as PE, PP or PTFE.
- In applications with very high UV exposure, the compound should be permanently protected using cover strips, suitable UV protection or UV film.
- Not suitable for permanently wet areas, underwater areas or natural stone applications.
- Not suitable for permanent sealing and bonding of copper and brass.
- Compatibility with various coatings, such as paints, varnishes or plastics, must be checked prior to application and, if necessary, must comply with the IMO FTP Code 2010 guideline.

7. Safety notices

All safety notices and instructions are listed in the current safety data sheet available on www.ramsauer.eu.

8. Liability for defects

All information, in particular suggestions for the processing and use of our products, is based on our knowledge and previous experience. Depending on the specific circumstances, in particular with regard to the substrate, processing and environmental conditions, the results may differ from our specifications. Therefore, no guarantee can be given for the quality of the results achieved, which are influenced by the aforementioned circumstances. No legal claims of any kind can be asserted against Ramsauer GmbH & Co KG on the basis of this information or verbal advice, provided that we are not guilty of intent or gross negligence. Ramsauer GmbH & Co KG guarantees that its products will retain their technical properties as specified in the technical data sheets until their expiry date. Product users must observe the latest technical data sheet, which can be downloaded from our website at www.ramsauer.eu. Our current General Terms and Conditions apply. These are also available on our website. With the publication of a new version or revision of a technical data sheet, all previous versions of the respective product lose their validity.

