

# 647 Spray Hybrid

## Hybrid adhesive



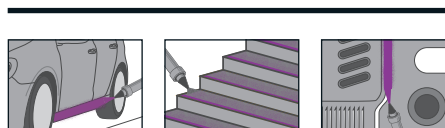
### Technical data sheet

Version: 07-2025



#### Tests:

- EMI CODE EC1<sup>PLUS</sup> "very low emissions"
- Determination of slip resistance as per Austrian standards ÖNORM Z 1261 & ÖNORM EN 16165
- Multi-impact stone chip resistance as per EN ISO 20567-1, Method B
- Ball drop test as per ASTM D 2794



Can be sprayed and spread



Tested for multi-stone and ball impact



Noise inhibiting



Slip resistance tested

## 1. Technical data

|   |  |
|---|--|
| Basis   | Hybrid adhesive - MS polymer                                       |
| Skin formation time                                       | ~ 12 Min. (23°C/50% relative humidity)                             |
| Full curing time  | ~ 2.0 mm/24 hours (at +23°C/50% relative humidity)                 |
| Density   | ~ 1.4 (EN ISO 1183-1)  |
| Shore A hardness  | ~ 41 (DIN EN ISO 868)  |
| Volume shrinkage  | ~ 4% (EN ISO 10563)  |
| Tear propagation resistance                               | ~ 8.5 N/mm (ISO 34-1)  |
| Tensile strength/100%                                     | ~ 1.00 N/mm <sup>2</sup> (DIN 53504-S2)                            |
| Tensile strength/breakage                                 | ~ 1.27 N/mm <sup>2</sup> (DIN 53504-S2)                            |
| Elongation at break                                       | ~ 250% (DIN 53504-S2)  |
| Building material class as per DIN EN 13501-1 / DIN 4102  | E / B2   |
| Resistance to high and low temperatures                   | -30°C to +110°C (long-term exposure)                               |
| Application temperature (substrate, environment)          | Lower +5°C, upper +35°C  |
| Coefficient of sliding friction [μ] as per ÖNORM EN 16165 | Dry mix: 0.51 / dry rubber: 0.49 / wet rubber: 0.52                |
| Slip resistance classification as per ÖNORM Z 1261        | Classification: I  |
| Stone chip resistance value as per EN ISO 20567-1         | 0 = surface without damage   |
| Ball drop test direct/indirect                            | No cracking / no cracking  |
| Colours   | Black  |
| Packaging   | 290 ml cartridges  |
| Shelf life of cartridges and foil bags                    | 12 months in original packaging in cool and dry storage conditions |

## 2. Properties/applications

647 Spray Hybrid is ideally suited for sealing joints and for corrosion and/or stone chip protection in the automotive industry. Tested anti-slip properties make it suitable for use as an anti-slip coating. The product is recommended for manufacturing wind-tight or driving rain-proof joints in combination with perimeter foils in window and door installation work, and for use in perimeter joints to transitions made of wood, concrete, brick, plasterboard or building board.

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## 3. Substrate pre-treatment

The adhesion surfaces must be capable of bearing and free of dust, oil and grease. Pre-cleaning with 828 Grundreiniger is generally recommended on non-absorbent substrates, but compatibility with sensitive surfaces should be checked in advance to avoid surface damage. If required, carefully pretreat the adhesion surfaces using a suitable primer. Sanding with a fine sanding fleece can further improve adhesion on smooth surfaces. Due to the many different coating systems, an adhesion test is recommended before application to painted surfaces.

| Substrate*                                   | Pre-treatment                  |
|--|--------------------------------|
| Glass  | 828 Grundreiniger              |
| Tiles  | 828 Grundreiniger              |
| Pine wood                                    | Dust free                      |
| Wet ground concrete                          | Dust free                      |
| Concrete, formwork smoothness                | Dust free                      |
| Steel DC 04                                  | 828 Grundreiniger              |
| Hot-dip galvanised steel                     | 828 Grundreiniger              |
| Stainless steel                              | 828 Grundreiniger              |
| Zinc   | 828 Grundreiniger              |
| Aluminium                                    | 828 Grundreiniger              |
| Aluminium AlMg1                              | 828 Grundreiniger              |
| Aluminium AlCuMg1                            | 828 Grundreiniger              |
| Aluminium 6016                               | 828 Grundreiniger / Primer 140 |
| Anodised aluminium                           | 828 Grundreiniger              |
| PVC Kömadur ES                               | 828 Grundreiniger / Primer 100 |
| PVC soft                                     | 828 Grundreiniger              |
| PC Makrolon Makroform 099                    | 828 Grundreiniger / Primer 100 |
| Polyacrylic PMMA XT 20070 Röhm* <sup>1</sup> | 828 Grundreiniger / Primer 40  |
| Polystyrene PS Iroplast                      | 828 Grundreiniger / Primer 100 |
| ABS Metzoplast ABS 7 H                       | 828 Grundreiniger / Primer 100 |
| PET  | 828 Grundreiniger              |
| PU waste quality                             | 828 Grundreiniger              |
| GRP  | 828 Grundreiniger              |
| PMMA Röhm sanitary quality                   | 828 Grundreiniger / Primer 100 |

**\*For substrates which are not listed in this table, the processor must always carry out preliminary tests to check the suitability of the sealant for use. The tests carried out above only refer to the adhesive properties and have no significance in terms of compatibility with the stated substrates.**

This table is based on adhesion tests with Rocholl test specimens under laboratory conditions. In practice, the adhesive properties depend on a large number of external influences (weathering, contamination, etc.). Therefore, this table is for guidance only and does not constitute a binding statement.

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

**\*2:** The compatibility with various mirror coatings by different manufacturers is regularly tested in our laboratory. Advance testing is recommended due to production processes of the various manufacturers, into which we have no insights, and as a function of the existing substrate and bonding variants.

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## 4. Application notes/restrictions

- Bonding tests must be carried out in advance for use in conjunction with roofing membranes and/or roofing foils.
- Avoid contact with materials containing bitumen and plasticisers, e.g. butyl, EPDM, neoprene, insulating paints or bituminous coating.
- The alkalinity of the concrete must not be too high for application on concrete. As of a pH value >9, we recommend priming with 160 Primer.
- 647 Spray Hybrid is not approved for applications with natural stone.
- Not approved for use in combination with insulating glass edge sealing systems
- Without pre-treatment, no adhesion is possible on plastics with a low-energy surface, such as PE, PP or PTFE
- Not suitable for processing in permanently wet or underwater areas.
- Not suitable for bonding structural glazing.
- Hybrid sealants and adhesives are not suitable for permanent joints or adhesion bonding of copper and brass

## 5. Processing

**General instructions:** The expiry date of the material must be observed, otherwise the properties of the product can no longer be guaranteed. If the products are stored and/or transported over a longer period of time at higher temperatures/humidity, the shelf life may be reduced or the material properties may change. Strong environmental influences (e.g. high temperature, UV exposure, chemical influences such as vapours) can affect the properties of the material to varying degrees. Before applying, the user must ascertain that the building materials (solid, liquid or in gaseous form) are compatible with the sealant in the contact area. Pay attention to the ambient and substrate temperature during application because as excessively high or low temperatures can lead to changes in properties. Due to the large number of possible influences during processing, it is always advisable for the processor to carry out a test processing before use. Good ventilation must be ensured during processing and curing.

**Pre-treatment of the adhesion surfaces:** The substrate must be pre-treated in accordance with the instructions in section 3 of this technical data sheet.

**Applying the adhesive:** 647 Spray Hybrid can be sprayed, brushed, applied using a smoothing tool and rolled. The best processing properties can be achieved by using our Jetflow compressed air presses; can be applied as a bead or to the surface depending on the nozzle setting. Apply 647 Spray Hybrid evenly and free of bubbles into the adhesive joint or onto the bonding surface while observing the processing conditions. If the substrate is pretreated with primer, its flash-off time must be observed. It is essential to ensure perfect contact with the adhesive surfaces or edges.

**After-treatment:** When using a tooling agent, apply it fresh, unused and sparingly. Once the joint has been formed, any tooling agent residue must be removed before it dries; visual flaws can otherwise occur.

## 6. Maintenance and care

Ramsauer sealants and adhesives are carefully manufactured using state-of-the-art production processes. This results in high-quality products which, when processed appropriately, enable durable and resistant bonding and jointing. However, in order to guarantee the functionality of the joints and bondings, they need to be checked at regular intervals in accordance with the loads they are exposed to (chemical, mechanical, thermal, UV radiation), to clean them and to renew them if necessary (also see information sheet "Care and maintenance of joint seals").

## 7. Meets the requirements of IVD instruction sheet

|          |  |
|----------|--|
| No. 16   | Perimeter joints in dry construction work - supports the use of sprayable sealants   |
| No. 19-1 | Sealing of joints and perimeters in the roof area - supports the use of sprayable sealants, assembly adhesives, butyl sealing tapes and profiles – Part 1 Exterior       |
| No. 19-2 | Sealing of joints and perimeters in the roof area - supports the use of sprayable sealants, assembly adhesives, butyl sealing tapes and profiles – Part 2 Airtight layer |
| No. 30   | Assembly adhesive for bonding and sealing  |

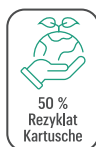
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## 8. Safety instructions

Please refer to the current EC safety data sheets. Data sheets are available at any time from our website at [www.ramsauer.eu](http://www.ramsauer.eu).

## 9. Liability for defects

The information, in particular the suggestions for the processing and use of our products, is based on our knowledge and experience in normal use cases at the time of printing. Depending on the specific circumstances, in particular with regard to substrates, processing and environmental conditions, the results may differ from this information. Therefore, no guarantee can be provided for the quality of the results achieved, which are influenced by the aforementioned circumstances. No legal claim, in whatever form, can be asserted against Ramsauer GmbH & Co KG based on these reference or from a verbal consultation, unless we are guilty of intent or gross negligence in this respect. Ramsauer GmbH & Co KG guarantees that its products comply with the technical properties specified in the technical data sheets until the expiry date. Product users must consult the latest technical data sheet, which can be requested from us. Our current General Terms and Conditions apply, which you can download at any time from our homepage at [www.ramsauer.eu](http://www.ramsauer.eu). On publication of a new version/revision of the technical data sheet, all previous versions of the respective product lose their validity.



Rutschhemmend nach  
ÖNORM Z 1261 &  
ÖNORM EN 16165

