Technical datasheet

OTTOCOLL® M 515 MultiFix

The all-round hybrid adhesive with high initial adhesion

1-component hybrid polymer STP adhesive | For indoor and outdoor application | M 515

Characteristics



- High initial adhesion
- Also bonding to damp surfaces
- Elastic - Compensates movements
- Can be painted and varnished – please observe application instruction in Technical Data Sheet
- Silicone-free
- Free of isocyanates

Fields of application

- Bonding of floor strips, decorative strips, stairs and window sills
- Bonding of wall cladding/decorative panels indoors, e.g. in kitchens and living areas
- Bonding of mirrors on ceramic, glass, plastic, stainless steel, aluminium, wood, concrete, etc.
- Bonding and mounting different materials, such as wood, wooden materials, plastics, metals and mineral substrates

Standards and tests

- Meets the requirements for fire behavior according to EN 13501: Class E
- French VOC-emission class A+

Technical properties

Skin-forming time at 23 °C/50 % RH [minutes]	~ 5 - 20
Curing in 24 hours at 23 °C/50 % RH [mm]	~ 2
Processing temperature from/to [°C]	+ 5 / + 35
Viscosity at 23 °C	pasty, stable
Density at 23 °C according to ISO 1183-1 [g/cm³]	~ 1,6
Shore-A-hardness according to ISO 868	~ 55
Stress expansion modulus at 100 % according to ISO 37, type 3 [N/mm²]	~ 1,8
Tensile expansion according to ISO 37, type 3 [%]	~ 200
Tensile strength according to ISO 37, type 3 [N/mm²]	~ 2,5
Starting bonding at 23°C [kg/m²]	~ 125 - 150
Temperature resistance from/to [°C]	- 40 / + 90
Shelf life at 23 °C/50 % RH for cartridge [months]	12 [1]

1) from production

These data are not suitable for the issue of specifications. Please contact OTTO-CHEMIE before issuing specifications.

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SEALING & BONDING

Pretreatment

The adhesive surfaces must be cleaned and any contamination such as release agents, preservatives, grease, oil, dust, water, old adhesives/sealants and other substances impairing adhesion must be removed. Cleaning of non-porous substrates: Clean with OTTO Cleaner T (no flash-off time required) and a clean, lint-free cloth. Cleaning porous substrates: Clean surfaces mechanically, e.g. with a steel brush or a grinding disc, to remove loose particles.
The adherent surfaces have to be clean, free from dust and grease as well as sustainable.

Primer table

The demands on elastic sealings and bondings depend on the respective exterior influences. Extreme fluctuations in temperature, tensile or shear forces, repeated contact with water etc. demand high requirements of a bonding. In such cases it is advisable to apply primer according to the recommendations of our technical department (e. g. +/OTTO Primer 1216) in order to achieve a resilient bonding.

Acrylic glass/PMMA	1227
Aluminium	+
Aluminium anodized	+
Aluminium powder-coated	1216 / T
Concrete	1105
Stainless steel	+
Epoxid resin coating	+
Fibre cement	1105
Glass	+
Wood, painted (solvent systems)	+
Wood, painted (aquaeous systems)	+
Wood, varnished (solvent systems)	+
Wood, varnished (aquaeous systems)	+
Wood, untreated	+ / 1225
Ceramic, glazed	+
Ceramics, unglazed	+ / 1215 / 1216
Copper	+ [1]
Melamine resin panels	+ / 1216
Brass	+ [1]
Melamine resin panels	+
Cellular concrete	1105
Plaster	1105 / 1215
PVC unplasticized	1217 / 1227
Tinplate	+
Zinc, galvanised iron	1216

1) See "Important information"

+ = good adherence without primer
- = not suitable
T = Test/pilot test advised

Important information

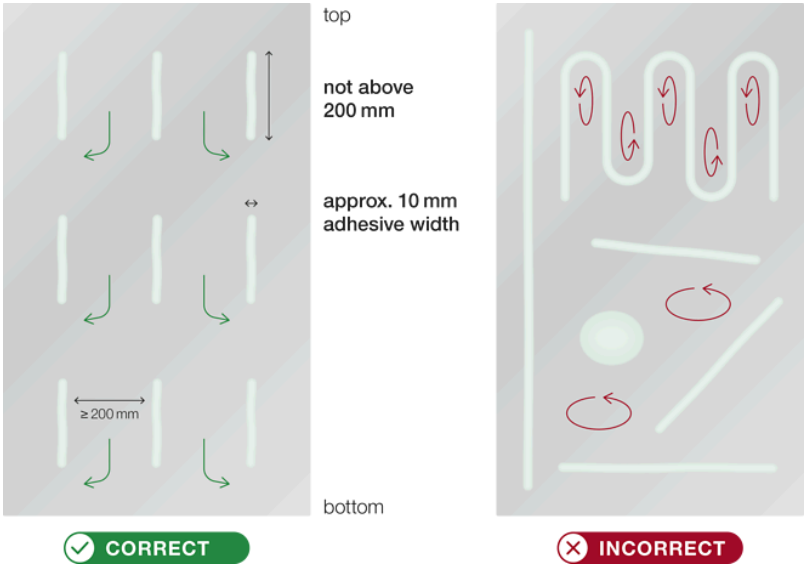
Before applying this product the user has to ensure that the materials in the area of contact (solid, liquid and gaseous) are compatible with it and also amongst each other and do not damage or alter (e. g. discolour) each other. As for the materials that will be used at a later stage in the surrounding area of the product the user has to clarify beforehand that the substances of content or evaporations do not lead to an impairment or alteration (e. g. discolouration) of the product. In case of doubt the user should consult the respective manufacturer of the material.
Paints, lacquers, plastics and any other coatings must be compatible to the adhesive/sealant.
For bonding or sealing of glass which is exposed to UV-radiation we recommend the use of our high quality silicone adhesives / sealants such as OTTOSEAL® S 110 / S 120 (for sealing of glazing rebate), OTTOSEAL® S 10 (e.g. for bonding), OTTOSEAL® S 7 (for weathersealing) or OTTOCOLL® S 81 (for bonded windows).
For bonding or sealing of transparent plastic material, such as acrylic glass, exposed to UV-radiation we recommend our silicone sealant OTTOSEAL® S 72.
The colours of the sealant may be affected by environmental influences (high temperature, chemicals, vapours, UV-radiation). This does not affect the characteristics of the product.

Not suitable for sealing / bonding copper upon impact of UV-radiation and temperature.
Not suitable for applications in underwater areas

Application information

In order to achieve good adhesion and good mechanical properties air entrapment must be avoided.
Curing time can be reduced by humidification and increased temperatures.
For the full-surface bonding of steam-tight substrates the adhesive should be moistened.
Our product can be overcoated with paint or varnish. The compatibility between the coating and our product has to be checked before the application by the user/processor - possibly under production conditions. Our OTTO application technology will gladly support you non-committally. If, in exceptional cases, after succesful compatibility test our product is coated over the entire surface, this coating must also be able to follow the elastic movement of the sealant. Otherwise crack formations in the coat of paint or optical impairments may occur.
Paints, lacquers, plastics and any other coatings must be compatible to the adhesive/sealant. Materials with alkaline contents may cause interactions in the form of discolouration.
In contact with oxidatively curing paints (e.g. alkyd resin paints) drying and curing can be delayed or prevented.
We recommend preliminary tests.
Coatings and their evaporation can lead to discolouration of the adhesive/sealant.
Discolouration of coatings due to interaction with the adhesive/sealant is not excluded.
Due to the many possible influences during and after application, the customer always has to carry out trials first.
Please observe the recommended shelf life which is printed on the packaging.
We recommend to store our products in unopened original packagings dry (< 60 % RH) at temperatures of +15 °C up to +25 °C. If the products are stored and / or transported at higher temperatures / air humidity for longer periods (some weeks), a diminuition of durability or a change of material characteristics may arise.
Processing as mirror adhesive:

Only mirrors should be bonded which have a reflecting and protection layer according to DIN EN 1036. In case of doubt please contact the manufacturer of the mirror.
With the Saint Gobain MIRALITE ® PURE mirror, incompatibility cannot be ruled out under certain object conditions. For bonding Saint Gobain MIRALITE ® PURE, we recommend our silicone mirror adhesives OTTOCOLL® S 16 or OTTOCOLL® S 610.
Mineral substrates such as concrete, plaster, masonry, gypsum board, cellular concrete as well as untreated wood have to be primed with OTTO Primer 1105. This is essential. The use of this primer as barrier does not only improve the adhesion, but it is also a barrier to alkaline. Without a barrier the alkaline in combination with moisture can (amongst others) damage the back side of the mirror.
Never apply the adhesive in a point-shaped manner, but in vertical strips. The length of one adhesive strip should not exceed 200 mm. For each m² of glass/mirror at least 3 adhesive strips must be applied in such a way that the strip width does not exceed 10 mm after pressing on the glass/mirror and the distance between the adhesive strips is at least 200 mm, so that the air circulation required for vulcanisation is possible. An adhesive surface of at least 10 cm²/kg glass/mirror is required for optimum load-bearing capacity.



In order to avoid the confinement of the crosslinker splitting product, a minimum space of 1.6 mm between mirror and substrate has to be kept mandatory. This space can be avoided most purposefully by stickingspacers. The minimum distance prescribed here serves the outbreathing of the crosslinker splitting product.
The recommended adhesive layer thickness is 2 - 4 mm.
The strength values required for bonding are reached after 48 hours at the earliest (23°C, approx. 50% RH). Until then a pre-fixing is necessary. This can be done from the front (glass side) with removable mechanical aids such as blocks, wedges or one-sided adhesive tapes or from the back (reverse side) with double-sided adhesive tapes such as OTTOTAPE Fixing Tape (double-sided).

We recommend OTTOSEAL® S 70 and OTTOSEAL® S 80 for the external sealing of the glass/mirror in connection with natural stones, and OTTOSEAL® S 120 and OTTOSEAL® S 125 in connection with other materials such as ceramics, metal, glass, etc.
It should be noted that sealing may only take place after complete curing of the adhesive and escape of the splitting products. This time is about 7 days. In the case of coated glasses without glass backs, only the vertical glass edges should be sealed in order to avoid damage to the glass coating due to condensation. Please note the following drawing.
When bonding to ceilings and walls (if the upper edge of the glass is 4 m above the floor surface), the glass must additionally be mechanically secured, e.g. by screwing or inserting it into frames.

Packaging

	290 ml cartridge
◯ **white**	M515-04-C01
Pieces per packaging unit	**20**
Pieces per pallet	**1200**

No special colours possible.
Due to typographical reasons the colours shown below may differ from the original colours of the products.

Safety precautions

Please observe the material safety data sheet.
After curing, the product is odourless.

Disposal

Information about disposal: Please refer to the material safety data sheet.

Warranty information

The above information and our technical application advice, whether verbal, in writing or by means of tests, are provided to the best of our knowledge, but are non-binding, including with regard to any third-party property rights. The information in this publication does not exempt the processor from carrying out their own tests on our products with regard to their suitability for the intended processes and purposes. The application, use and processing of our products and the products manufactured on the basis of our technical application advice are beyond our control and are therefore the sole responsibility of the processor. If the application for which our products are used is subject to an official authorisation requirement, the user is responsible for obtaining these authorisations. We reserve the right to adapt the product to technical progress and new developments. For the rest, we refer to our General Terms and Conditions, in particular with regard to any liability for defects. You can find our GTC at www.otto-chemie.de.