

# RK-1500 Structural Acrylic Adhesive



**liquid**  
**strong**  
**fast-curing**

WEICON RK-1500 has high impact, peel, and shear strength.

The system consists of adhesive and activator which are used in the “no mix” procedure. This makes processing easier by eliminating mixing procedures. RK-1500 is particularly well suited for processing on large bonding surfaces.

The transparent adhesive is particularly suitable for bondings of glass, metal and ceramics to themselves and among each other.

WEICON RK-1500 can be used in mechanical and apparatus engineering, vehicle construction, tool and mould making, the building and furniture industry and in many other industrial applications.

## Technical Data

|  |                        |
|--|------------------------|
| Composition  | Methyl methacrylate    |
| Colour after curing                                      | yellowish, transparent |
| Density of the mixture                                   | 1,00 g/cm <sup>3</sup> |
| Viscosity of the mixture                                 | 4.500 mPa·s            |
| Application procedure                                    | No-Mix                 |
| Composition  | liquid                 |
| Handling strength (35% strength) after                   | 5 min.                 |
| Capable of bearing mechanical loads (50% strength) after | 8 min.                 |
| Processing temperature                                   | +10 to +40 °C          |
| Curing temperature                                       | +18 °C                 |
| Final strength (100%) after                              | 24 h                   |
| Adhesive gap bridging                                    | 0,4 - 0,8 mm           |
| Shear strength according to DIN EN 1465 at:              |                        |
| Aluminium  | 20 N/mm <sup>2</sup>   |
| Steel sand blasted                                       | 25 N/mm <sup>2</sup>   |
| Stainless Steel  | 30 N/mm <sup>2</sup>   |

## Note

The specifications and recommendations given in this technical data sheet must not be seen as guaranteed product characteristics. They are based on our laboratory tests and on practical experience. Since individual application conditions are beyond our knowledge, control and responsibility, this information is provided without any obligation. We do guarantee the continuously high quality of our products. However, own adequate laboratory and practical tests to find out if the product in question meets the requested properties are recommended. A claim cannot be derived from them. The user bears the only responsibility for non-appropriate or other than specified applications.

|                        |                                |
|------------------------|--------------------------------|
| PC                     | 10 N/mm <sup>2</sup>           |
| PMMA                   | 8 N/mm <sup>2</sup>            |
| ABS                    | 6 N/mm <sup>2</sup>            |
| Hard-PVC               | 11 N/mm <sup>2</sup>           |
| GRP                    | 20 N/mm <sup>2</sup>           |
| CFK                    | 27 N/mm <sup>2</sup>           |
| Polyamide 6.6          | 3 N/mm <sup>2</sup>            |
| Temperature resistance | -50 to +130 briefly to +180 °C |
| ISSA-Code              | 75.629.53                      |
| IMPA-Code              | 812992                         |

## Surface pre-treatment

To ensure perfect bonding, the surfaces to be joined must be clean and dry (to clean and degrease use WEICON Surface Cleaner). The highest strength values can be achieved through additional pre-treatment of the surfaces, such as roughening using blasting or abrasive agents. Several plastics, in particular polyamide, PTFE, polyolefin etc. can only be bonded after special surface treatment, for example using fluoridation, low-pressure plasma, corona, flame impingement etc.

## Processing

### Processing of the RK Activator

The RK Activator is applied, depending on the size of the bonding gap, on either one side or both sides of the surfaces to be bonded (brush, spray, dip). In case of bond lines with a max. of 0.4 mm in width, the Activator only needs to be applied on one side, for bond lines of up to a max. of 0.8 mm in width and/or rough, porous or passive surfaces (chrome, nickel etc) the Activator must be applied on both sides. For smooth plastic and metal surfaces, approx. 30 g/m<sup>2</sup> is necessary, for rough and porous surfaces up to 150 g/m<sup>2</sup> of Activator may be necessary. The evaporation time at room temperature (+20°C) is at least 5 minutes. A significant advantage to other adhesive systems is that the coated components can be stored up to 30 days at room temperature (+20°C) without losing effectiveness.

### Processing of the RK Adhesive

The Adhesive is applied only on one side and normally on the surface which is not coated with Activator. The size of the bonding gap can be up to 0.80 mm (only if the Activator is applied on both sides). Bonding gaps of 0.15 mm to 0.25 mm in width always have the highest tensile shear strength.

For smooth plastic and metal surfaces, approx. 180g/m<sup>2</sup> of the adhesive are needed, for rough and porous surfaces approx. 300g/m<sup>2</sup>.

### Processing temperature

The processing should take place at room temperature (approx. +20°C). Higher temperatures, e.g. +40°C shorten the positioning and curing times by approx. 30%, lower temperatures of approx. +10°C increase the respective times by approx. 50% and at down +5°C almost no reaction occurs anymore.

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**Storage**

WEICON RK Construction Adhesives have a shelf life of at least 12 months if stored in a dry room at a constant temperature of approx. +20°C. At temperatures between +1°C and +7°C the shelf life can be extended up to 24 months. This applies for closed original units which have not been directly or indirectly exposed to sunlight. In case of storage temperatures exceeding +40°C and high humidity, the shelf-life is shortened to 6 months.

WEICON RK-Activator has a shelf life of at least 6 months if stored in a dry room at a constant temperature of approx. +20°C. At temperatures between +1°C and +7°C the shelf life can be extended up to 24 months. This applies for closed original units which have not been directly or indirectly exposed to sunrays. In case of storage temperatures exceeding +40°C and high humidity, the shelf-life is considerably shortened.

**Safety and health**

When using WEICON products, the physical, safety technical, toxicological and ecological data and regulations in our EC safety data sheets ([www.weicon.com](http://www.weicon.com)) must be observed.

**Available sizes:**

|          |  |
|----------|--|
| 10563860 | RK-1500 Structural Acrylic Adhesive 60 g   |
| 10563330 | RK-1500 Structural Acrylic Adhesive 310 g  |
| 10563800 | RK-1500 Structural Acrylic Adhesive 1.0 kg |
| 10563906 | RK-1500 Structural Acrylic Adhesive 6.0 kg |

**Accessories:**

|          |                    |
|----------|--------------------|
| 13955050 | Primer Applicator, |
|----------|--------------------|

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