

Technical Datasheet

Create Date: 17.11.2017 - Seite 1/2

RK-1300 Structural Acrylic Adhesive



pasty
strong
fast-curing

WEICON RK-1300 Structural Adhesive 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. The product is particularly suitable for bonding large surfaces of many different materials such as metals, ferrites and rigid plastics.

WEICON RK-1300 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

Base	Methyl methacrylate
Colour after curing	beige, opaque
Density of the mixture	1.2 g/cm³
Viscosity of the mixture	21.000 mPa·s
Application procedure	No-Mix
Composition	pasty
Handling strength (35% strength) after	6 min.
Capable of bearing mechanical loads (50% strength) after	9 min.
Processing temperature	+10 to +40 °C
Curing temperature	+18 °C
Final strength (100%) after	24 h

Note

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Adhesive gap bridging	0,4 - 0,8 mm
Shear strength according to DIN 53281 at:	
Aluminium	20 N/mm²
Steel sand blasted	25 N/mm²
Stainless Steel	25 N/mm²
PC	10 N/mm²
PMMA	9 N/mm²
ABS	6 N/mm²
Hard-PVC	7 N/mm²
GRP	16 N/mm²
CRP	24 N/mm²
Polyamide 6.6	2 N/mm²
Temperature resistance	-50 to +130 briefly to +180 °C
ISSA-Code	75.629.52
IMPA-Code	81 29 91

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/m² is necessary, for rough and porous surfaces up to 150 g/m² 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

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Create Date: 17.11.2017 - Seite 2/2

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.

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.

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.

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) must be observed.

Available sizes:

10560060	RK-1300 Structural Acrylic Adhesive 60 g
10560330	RK-1300 Structural Acrylic Adhesive 330 g
10560800	RK-1300 Structural Acrylic Adhesive 1.0 kg
10561906	RK-1300 Structural Acrylic Adhesive 6.0 kg

Accessories:

10562100	Activator for RK-1300 & RK-1500, 100 ml
11202400	Sealant and Adhesive Remover, 400 ml
11207400	Surface Cleaner, 400 ml
11850200	Hand Protective Foam, 200 ml
13955050	Primer Applicator,

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