KLEBER ColdJoin™ AA550 Impact-Resistant Acrylic Structural AdhesiveProduct Description

KLEBER ColdJoin™ AA550 is an impact-resistant, two-component epoxy-modified acrylic structural adhesive. It is specifically designed for automotive body assembly and vehicle repair applications. It effectively enhances body rigidity, impact resistance, and durability. This product cures rapidly at room temperature and features high impact strength, high elongation, and high T-peel strength.

Performance & Features

- **Bonding Performance:** Exhibits excellent bonding strength to various grades of automotive steel and aluminum sheets, demonstrating wide applicability.
- **Structural Enhancement:** Significantly improves overall vehicle structural rigidity and impact resistance, strengthening the body's deformation resistance.
- **Environmental Resistance:** Possesses excellent durability and corrosion resistance, capable of withstanding complex operating conditions in long-term vehicle use.
- **Process Compatibility:** Compatible with mechanical fastening processes, facilitating integration into existing production and repair processes.

Technical Parameters:

Property	Unit	Component	Component B	After Mixing
Appearance	-	Amber paste	Red paste	Red paste
Viscosity @25°C	Pa·s	150-300	300-500	-
Specific Gravity	g/cm³	0.95-1.00	1.25-1.30	-
Mixing Ratio by Volume	-	10	1	

Property	Unit	Component	Component B	After Mixing
Working Time @25°C	min	-	-	6-8
Handling Time @25°C	min	-	-	18-24

Properties after Curing:

Property	Unit	Test Standard	Value
Lap Shear Strength, Aluminum Substrate @25°C	MPa	ASTM D1002	17
T-Peel Strength, Aluminum Substrate @25°C	N/mm	ASTM D1876	7
Tensile Strength	MPa	ASTM D638	18
Elongation at Break	%	ASTM D638	100
Glass Transition Temperature (Tg)	°C	DMA	80

Typical Applications

Automotive, Buses, Rail Transit

Application Process

- **Mixing:** Thoroughly mix Component A and Component B at a volume ratio of 10:1. The use of handheld cartridges or automatic mixing equipment is recommended; manual mixing is not advised.
- **Application:** Apply the mixed adhesive onto the substrate. Assemble the parts within the working time and clamp them until the adhesive reaches handling strength. Do not separate the parts after assembly.
- **Curing:** The adhesive cures rapidly after mixing. It reaches handling strength in 18-24 minutes at room temperature and achieves optimum strength in 24 hours.

Storage Conditions

Each component has a shelf life of 6 months from the date of manufacture when stored in the original, unopened container at 25°C. Storage at 4-10°C is recommended. If refrigerated, allow the product to return to room temperature before use. Avoid direct sunlight. Do not store or use near open flames or high-temperature sources.

Note:
The contents recorded above are based on data deemed accurate at the time of compilation by our company. We make no warranty as to the accuracy or completeness of the above data and safety information. We assume no responsibility for any damage or injury caused by improper handling or failure to comply with recommendations, or by any inherent hazards of the product. Matters relating to the content and physical and chemical properties of the product, such as danger and harmfulness, have not been adequately addressed, and there is a possibility that they may occur. If you use the product informally, please take safety precautions in accordance with the actual situation on the spot.

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