

Product information

Adhesives

AD-4200

FEATURES

- Fast curing
- High heat resistance
- Thin joint thickness

COMPOSITION

- Resin: AD4200
- Hardener: H4200F



AD-4200 is a two-component, filler-free, fast curing epoxy adhesive characterized by good thermal resistance and minimal joint thickness.

APPLICATIONS

- Bonding of epoxy boards.

TYPICAL PROPERTIES

This data does not constitute the Product Sales Specifications. The values indicated refer to typical properties and are not to be understood as extreme minimum or maximum values. They do not constitute a guarantee of product conformity and do not relieve the buyer from the need to test the suitability of the products before use or placing them in his production cycle. Please contact your local sales representative to obtain the product specifications.

Property	Unit	Value
Color (Resin/Hardener)	Visual	Straw / Straw
Density at 23°C (Resin/Hardener)	g/cm ³	1.10-1.20 / 0.95-1.05
Viscosity at 23°C (Resin/Hardener)	mPa.s	
Mix ratio Resin : Hardener	pbw	100 : 28
Onset [DSC]	°C	
Pot Life [150g at 23°C]	mins	25
Gel time [150g at 23°C]	mins	30
Gel time [thin layer at 23°C]	hours	3 - 4
Dry in film [at 23°C]	hours	8 - 9
Exothermic peak	°C	232
Hardness	Shore D	85
Tensile strength	MPa	57.4
Elongation at break	%	9.8
Flexural modulus	MPa	2710
Flexural strength	MPa	104
CTE	10 ⁻⁶ K ⁻¹	45
Tg	°C	87
Max service temperature	°C	120

SUBSTRATE SETTING

The surface of the supports must be clean, free from dust, oils, release agents. If necessary degrease with 1-bromopropane or other suitable solvent.

RESIN SETTING

The two components must be processed at a temperature between +20°C and +30°C. High temperatures increase the reaction rate, reducing the workability time.

MIXING

Mix the two components in the proportions indicated for at least 3-4 minutes until a homogeneous mixture is obtained. Make sure that the material on the sides and bottom of the container is well mixed. The greater the quantity of material, the shorter the workability time. The higher the temperature of the environment and components, the shorter the workability time.

APPLICATION

Apply with a spatula on both surfaces to be bonded and join them. Apply clamps to hold the parts to be bonded in place.

We recommend waiting 24 hours before proceeding with further processing. The yield of the product of about 400 g/m², varies according to the method of application and the flatness of the boards.

CURING

Complete curing is obtained after 48 hours at 23°C. The product can generally be processed within the times indicated above. The hardening time depends on the mass: thinner thicknesses require longer curing times. High product and environmental temperatures lead to reductions in workability and hardening times. Conversely, low temperatures mean longer times. A post-curing treatment in an oven up to 100°C is recommended to stabilize the polymer at high temperatures. Perform a gradual warm-up and cool-down ramp to avoid thermal shock.

HANDLING PRECAUTIONS

The information for a correct and safe handling of the products is contained in the safety data sheet. Consult the safety data sheets before use for complete information on the risks to health and the environment and for the suitable protective devices to be adopted. Share the safety data sheets with all staff involved in the use of the products.

USABLE LIFE - STORAGE

Resin and hardener must be stored in the original unopened containers at a temperature between +10°C and +35°C. Epoxy resins can crystallize at low temperatures: heat to 40-50°C for 8-12 hours to restore the product. Bring the components to 20-25°C before use. Be sure to close containers tightly after use.

When stored under the specified conditions, the components have a shelf life of 12 months from the date of manufacture.

PACKAGING

The components are supplied in 3,5 kg (Resin) and 1kg (hardener) cans. For other packaging please contact our sales department.

LIMITATIONS

This product is neither tested nor represented as suitable for food contact, skin contact or medical uses.

LIMITED WARRANTY

The information contained in this document is offered in good faith based on Chemix research and is believed to be accurate. However, as the conditions and methods of use of our products are beyond our control, this information should not be used as a substitute for the tests that customers must first perform to ensure that Chemix products are fully satisfactory for their specific applications. The warranty is only applicable to the values indicated in the Product Sales Specifications. The sole and exclusive compensation for products with values that are out of specification is limited to the replacement of the product or the refund of the purchase price.

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