



Weicon Casting Resin MS 1000

Weicon Casting Resin MS 1000 is a versatile epoxy resin compound that can be used for a wide variety of applications. This easy to use, liquid, two-part epoxy can be used either by itself or in conjunction with various fillers to modify its appearance or behaviour.

Weicon Casting Resin is ideal for making epoxy moulds, filling voids and applying epoxy coatings to various surfaces. It adheres well to a wide range of materials and, once cured, exhibits good resistance to a variety of chemicals.

Casting Resin MS 1000 can be combined with various fabric, powder or fibrous fillers to change its appearance or enhance its performance in particular applications.

Properties

Basis	Epoxy Resin (Unfilled)
Mix Ratio	10:2
Density of the Mixture	1.1 g/cm ³
Pot Life at 200g of Material At 20°C	20 Min.
Viscosity of the Mixture	1,300 MPa
Processing Temperature	+10°C to 35°C
Curing Temperature	+6°C to 40°C
Colour After Curing	Transparent (Slight Inherent Colour)
Max. Layer Thickness Per Application	10mm
Mechanical Strength (50%) When Curing at 20°C	24 Hours
Final Strength (100%) When Curing at 20°C	36 Hours
Mean Compressive Strength at 25°C (DIN 53281-83)	60 MPa
Mean Tensile Strength at 25°C (DIN 53281-83)	25 MPa
Mean Flexural Strength at 25°C (DIN 53281-83)	285 MPa
Strength E-Modul at 25°C (DIN 53281-83)	17,000 – 18,000 MPa
Shore Hardness at 25°C (DIN 53281-83)	65 Shore D
Shrinkage	0.2%
Thermoforming Resistance	+50°C
Temperature Resistance	-35°C to +120°C
Electrical Resistance (IEC 60.093)	10 ¹⁵ Ω/cm
Dielectric Strength (IEC 60.243)	14 kV/mm
Thermal Conductivity (ISO 8894-2)	0.2 W/m·K

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Important

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**Weicon Casting Resin MS 1000****Casting Resin MS 1000 Chemical Resistance After Curing**

Acetic Acid Dilute (<5%)	+	Hydrocarbons (Aromatic)	-
Acetone	O	Hydrochloric Acid (<10%)	+
Alkalis (Basic Minerals)	+	Hydrochloric Acid (10-20%)	+
Amyl Acetate	+	Hydrofluoric Acid Dilute	O
Amyl Alcohols	+	Hydrogen Peroxide (<30%)	+
Anhydrous Ammonia (25%)	+	Impregnating Oils	+
Barium Hydroxide	+	Magnesium Hydroxide	+
Butyl Acetate	+	Maleic Acid	+
Butyl Alcohol	+	Methanol (Methyl Alcohol, <85%)	O
Calcium Hydroxide (slaked lime)	+	Milk of Lime	+
Carbolic Acid (Phenol)	-	Naphthalene	-
Carbon Disulphide	+	Naphthene	-
Carbon Tetrachloride	+	Nitric Acid (<5%)	O
Caustic Potash Solution	+	Oils, Vegetable and Animal	+
Chlorinated Water	+	Oxalic Acid (<25%)	+
Chloroacetic Acid	-	Paraffin	+
Chloroform	O	Perchloroethylene	O
Chlorosulphonic Acid	-	Petrol (92-100 Octane)	+
Chromic Acid	+	Phosphoric Acid (<5%)	+
Chroming Baths	+	Phthalic Acid	+
Creosote Oil	-	Phthalic Acid Anhydride	+
Cresylic Acid	-	Potassium Hydroxide (Caustic Potash, 0-20%)	+
Crude Oil	+	Soda Lye	+
Crude Oil Products	+	Sodium Bicarbonate (Sodium Hydrogen Carbonate)	+
Diesel Fuel Oil	+	Sodium Carbonate (Soda)	+
Ethanol < 85% (Ethyl Alcohol)	O	Sodium Chloride (Cooking Salt)	+
Ethyl Alcohol	O	Sodium Hydroxide (Caustic Soda, <20%)	O
Ethyl Benzole	-	Sulphur Dioxide	+
Ethyl Ether	+	Sulphuric Acid (<5%)	O
Exhaust Gases	+	Tannic Acid Dilute (<7%)	+
Formic Acid (>10%)	-	Tetralin	O
Glycerine	+	Toulene	-
Glycol	O	Trichloroethylene	O
Grease, Oils and Waxes	+	Turpenetine Substitute (White Spirit)	+
Heating Oil, Diesel	+	Xylene	-
Humic Acid	+		
Hydrobromic Acid (<10%)	+		
Hydrocarbons (Aliphatic)	+		

+ = Resistant

O = Resistant for a Limited Time

- = Not Resistant

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Preparation of the Surface

To ensure a perfect bond, the surface to which Casting Resin will be applied must be clean and dry (Weicon Cleaner S or Weicon Plastic Cleaner may be ideal for this task). Smooth surfaces should be roughened (e.g. sand blasting).

Cast parts, which have been exposed to sea water for a long time, should be treated with special care as they might contain inorganic salts. It is possible that these salts reach the surface and absorb moisture, thus starting the formation of rust (rust bubbles under the protective coating). It is therefore suggested that such parts are heated or exposed to flame after sand blasting.

If adhesion is not desired, a separating agent must be used. For smooth surfaces, Weicon Mould Release Agent (silicone free) or Weicon Silicone Spray may be suitable.

It is suggested that you begin the application of Weicon Casting Resin immediately after surface pre-treatment to avoid oxidation and instantaneous rust formation.

Processing

To ensure proper curing is achieved, it is critically important that the two parts that make up each kits of Casting Resin are properly mixed. Space has been left in the larger resin container so the entire contents of the hardener container can be added, thus ensuring a proper mix ratio. If you are using less than the full kit, it is very important that the 10:2 mix ratio (by weight) be observed.

Casting Resin MS 1000 covers gaps, fills voids or can be poured up to a maximum of 10mm per application. The pot life given is for a material quantity of approximately 200 grams at room temperature. If larger quantities are used, the curing time will be faster due to the typical reaction heat of epoxy resins (exothermic reaction). Similarly, higher ambient temperatures shorten the cure time (as a rule of thumb, every 10°C increase above room temperature will halve working time and cure time). Temperatures below +16°C will extend working time and cure time considerably while below around +5°C no reaction will occur.

Physiological properties / health and safety at work

Weicon Casting Resin MS 1000, when properly handled and completely cured, is toxicologically harmless. When using this product, the physical, safety, technical, toxicological and ecological data and regulations in the SDS must be observed.

Storage

When stored unopened and in normal climatic conditions (20°C) Weicon Casting Resin MS 1000 has a minimum shelf-life of 18 months. Storage in direct sunlight should be avoided.

Availability

Weicon Epoxy Resin Putty is available in 1kg kits.

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