

Cold Mounting Material

Revision: 6th of August, 2020

PRODUCT NAME	ITEM NO.	SUPPLEMENTARY DETAILS
Cold Mounting Material KEM 90		
Resin	92002484	500 ml
Hardener	92002485	250 ml
Set	95012024	Consisting of 1 kg powder, 500 ml liquid, 40 mixing cups, 40 mixing sticks, 2 dosing spoons

Description	Cold mounting material for embedding materialographic specimens.
Material	The system consists of two liquid components Hardener: Benzyl alcohol 30-50 %, 3-Aminomethyl-3,5,5-trimethyl-cyclohexylamine 10-20 %, phenol styrenated 1-2,5 %, Resin: 4,4`-Methylen diphenyldiglycidylether 50-70 %, reaction product: Bisphenol-F-Epichlorhydrinresin (number average molecular weight < 700) 25-30 %, oxirane, mono[(C12-14-alkoxy)methyl] derivs 10-20 % All further additives are contained in amounts below the threshold values for mandatory identification and can be considere nonhazardous additives.
Properties	Resin: slightly viscous, clear liquid, characteristic smell, flash point > 130°C, reacts with acids, alkalis and oxidizing agents Hardener: low viscosity, yellow liquid, characteristic amine-like smell, flash point > 108°C, reacts with acids, alkalis and oxidizing agents
Application	The product is a self-curing 2-component-polymer for cold mounting samples. The product shows a low gap formation and is suitable for vacuum infiltration. It is well suited for mounting samples of low to medium hardness. Another main application is the targeted preparation of assemblies. It is applicable for the analysis of marginalized layers, coatings and intricate geometries. Both components are mixed in the gravimetric ratio 2 (resin): 1 (hardener). The components have to be mixed for at least 30 s until a homogeneous solution is obtained. After the sample is placed in the mold (POM, PTFE, PE, PP) the mounting material is cast. It is important to prevent foaming and bubble formation. A curing under vacuum (up to 0.6 bar) is possible. The cured and ground sample should be transparent and of slightly yellow color. Curing Temperature: RT- 60 °C, pot life: 2-3h, curing time; 16-24 h, Hardness; 79 Shore D
Health and safety	The product should be used on a well vented working place, ideally a suitable fume-cupboard is used. Inhalative exposition has to be minimized. Protective clothing, protective gloves (NBR with suitable penetration time) and tightly sealed eye protection must be worn. In case of dermal exposition, wash thoroughly with water and soap. In case of a fire CO, NO _x and other VOCs are formed as hazardous decomposition products. Water-spray, CO ₂ and extinguishing powder are suitable extinguishing agents. Further information regarding first aid measures and safety instructions can be taken from the products SDSs.
Environmental precautions	The product is classified in the water toxicity class 2. The product has to be kept away from surface-/phreatic waters. Small amounts of cured KEM 90 can be disposed in domestic waste. Resin and hardener are hazardous waste and have to be discarded according to local legislation.