POOLKEMIE

Liquid Rubbers & Resins
Chemicals for Industry & Artworks

POLIFOAM
Fast polyurethane foam system

RESIN	HARDENER	MIXING RATIO
POLIFOAM Component A	POLIFOAM Component B	100:100

DESCRIPTION: Two-components fast polyurethane foam system. The product expands till 8-10 times. The system does not contain any ozone depleting agents.

APPLICATIONS: Low-medium density components. Rigid and light filling of moulds and patterns.

PROCESSING: Mechanical mixing. Manual mixing. Short pot-life (20-30 sec). Room temperature curing. Better surface finishing can be obtained foaming into a hot mould (50-60°C).

INSTRUCTIONS: Handling precautions:
Add the proper quantity of the hardener to the resin, mix carefully. Cast quickly before 20-30 seconds from the starting of the mixing on shapes well insulated from moisture, dried and treated with the suitable release agents. Demoulding is possible after 20-30 minutes.
Attention: the shrinkage depends on the operative conditions used. It is necessary to verify the effective value referring to applications and conditions.

POST-CURING: It is necessary only for uses at temperature higher than 70°C or to obtain a rapid stabilization of the material. In this case post-cure the component gradually avoiding thermal gradients over 10°C/hour and maintain the product at the maximum temperature for 2-4 hours.

STORAGE AND PRECAUTIONS: Polyurethane resins and the isocyanate based hardeners can be stored for one year in the original sealed containers kept in a cool and dry place. The hardeners may present an increase in viscosity that do not change the cured system properties. Both components are moisture sensitive therefore it is a good practice to close the vessels immediately after each use. Moisture absorption may cause the expansion of the product during application and/or the hardener may crystallize during storage.

SYSTEM SPECIFICATIONS:

RESIN:			
HARDENER:	Viscosity at 25°C	mPas	150 - 300

TYPICAL SYSTEM CHARACTERISTICS

PROCESSING DATA	
Resin colour	Pale yellow
Hardener Colour	Brown
Density at 25°C resin (ASTM D 1475)	g/ml 1,00 – 1,20
Density at 25°C hardener (ASTM D 1475)	g/ml 1,21 – 1,25
Mixing ratio by weight(for 100 g. RESIN)	g. 100:100
Mixing ratio by volume (for 100 ml. RESIN)	ml. 100:90
Cream time 25°C 200ml	Min. 35 – 45
Gelation time 25°C (*)	sec. 90 – 140
Exothermic peak at 25°C (40mm;100ml)	45 – 55 °C
Demoulding time 25°C (15ml;6mm) (*)	Min. 20 – 30

TYPICAL CURED SYSTEM PROPERTIES

Properties determined on specimens cured: 24 h TA + 15 h 60°C.

PROCESSING DATA	
Colour	Beige
Machinability	Good
Density 25°C (ASTM D 792)	g/ml 110 - 150
Linear shrinkage	% 0,50 - 1,00
Max recommended operating temperature (***)	°C 65 - 75

nd = not determined; na = not applicable; RT = TA = laboratory room temperature (23±2°C)
Conversion units: 1 mPas = 1 cPs 1MN/m2 = 10 kg/cm2 = 1 MPa
(*) for larger quantities pot life is shorter and exothermic peak increases
(**) the brackets mean optionality
(***) The maximum operating temperature is given on the basis of laboratory information available being it function of the curing conditions used and of the type of coupled materials. For further possible information see post-curing paragraph.
The information given in this publication is based on the present state of our technical knowledge but buyers and users should make their own assessments of our products under their own application conditions.