



# POLY TI AKD PU RUBBER MOLDING SYSTEMS

## POLY TI AKD45



### PRODUCT DESCRIPTION

POLY TI AKD45 is a two component, solvent free, high modulus, polyurethane elastomer. It provides excellent elasticity and high tear resistance properties with minimum shrinkage. Cures by reaction (cross linking) of the two components even at very low temperatures.

### USES

The POLY TI AKD45 is a specialized elastomeric resin for:

- Production of moulds for use in producing concrete objects.
- Production of medium-elastic pressing molds for use in the stamped concrete procedure (edge stamps)
- Production of medium-elastic objects.
- Filling / casting applications

### ADVANTAGES

- Solvent free
- Shore A 45
- Long pot life
- Cold curing
- Minimum shrinkage
- High tear strength
- High impact strength
- Chemical resistant
- Over 10 years of positive feedback worldwide.

### CONSUMPTION

1,2 kg / liter

### COLORS

The POLY TI AKD45 is supplied in grey. Other colors may be supplied on demand.

### TECHNICAL DATA

PROPERTY	RESULTS	TEST METHOD
Composition	Polyurethane Resin + Hardener. Solvent free.	
Mixing Ratio	A : B = 100 : 75 by weight	
Hardness (Shore A Scale)	45 + 2	ASTM D 2240
Solids Content	100 %	CALCULATED
Temperature strength	80°C (Fully cured)	IN HOUSE LAB
Low Temperature Brittleness	-40°C (Fully cured)	IN HOUSE LAB
Pot Life	15 minutes	Conditions:20°C,50%RH
Tack Free Time	3-4 hours	
Demoulding Time	24 hours	
Final Curing time	7 days	

### CHEMICAL PROPERTIES

Water	+	Hydrochloric acid %5	+
Potassium hydroxide %5	+	Styrene	+
Sodium hydroxide %5	+	Sulfuric acid %5	+
Salt water %20	+	Xylene	+
Domestic Detergents	+	DMSO	-
Diesel oil	+	N-Methyl pyrrolidone	-

{+ stable, - unstable, ± stable for a short period.}

## APPLICATION

### Mould Preparation

Before casting, check that parts or moulds are free of any trace of moisture (Maximum surface moisture content should not exceed 4%).

Before the application of the POLY TI AKD45, the prepared object has to be coated with a suitable liquid-applied mould release agent as the POLY TI AKD99 to avoid bonding with the mould.

### Mixing

Stir POLY TI AKD45 Component A well before using. Stir POLY TI AKD45 Component B well before using.

POLY TI AKD45 Component A and Component B should be mixed by low speed mechanical stirrer, according to the indicated mixing ratio in this technical data sheet, for about 3 min if applied manually. Both parts (Component A and Component B) have to be mixed at a temperature higher than 18°C. Component B may be heated to 40°C in order to reduce its viscosity but this will result in a shorter pot life.

**ATTENTION:** The mixing of the components has to be effected very thoroughly, especially on the walls and bottom of the pail until the mixture becomes fully homogeneous.

### Casting

Apply POLY TI AKD45 resin with a brush on the bottom of the mould to avoid entrapped air pockets. After 15-30 min pour POLY TI AKD45 resin into mould.

**RECOMMENDATION:** Use suitable vacuum to remove entrapped air bubbles.

**ATTENTION:** Please ensure consumption within the Pot Life.

### Prototyping

It is advisable to prepare the object to be copied, by sealing all pores with the POLY TI AKD95 resin, especially if the object is very porous and absorbent.

## PACKAGING

Pails should be stored in dry and cool rooms for up to 9 months. Protect the material against moisture and direct sunlight. Storage temperature: 5<sup>o</sup>-30<sup>o</sup>C. Products should remain in their original, unopened containers, bearing the manufacturers name, product designation, batch number and application precaution labels.

## SAFETY MEASURES

Please study the Material Safety Data Sheet.

**PROFESSIONAL USE ONLY**

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