

## CASTING RESIN CST121/17 MATERIAL DATA SHEET

### PRODUCT DESCRIPTION

SPR121/17 is a 100% solids, two component, semi-rigid, polyurethane. CST121/17 has a hardness in the 65– 75 Shore D. and is 2:1 parts by volume, low -pressure Casting resin. It has good chemical resistance, protects against rust and corrosion and can be used for mold-making or for indoor floor coatings. CST121/17 is similar to our SPR121/17 spray coating, except that the reactivity has been slowed down for other applications where spray is too fast. This system has a standard cure time of approximately 5 min., but can be slowed down to about 15 minutes, making it suitable as a hard coating for floors. IPS manufactures top of the line polyurethanes providing consistent results – every time.

### FEATURES

There are several advantages to using polyurethane systems:

- Durable
- Highly abrasion resistant
- Highly chemical resistant
- Environmentally friendly ( 0 VOC emissions )
- Reduced time (cures quickly)

### TECHNICAL DATA

#### Chemical Properties

Properties	Unit	Test Method	Typical Values		
			Polyol	Isocyanate	Mixture
Appearance			amber	dark brown	brown
Density	g/cm <sup>3</sup>	ASTM-D 1475	1.03	1.23	1.11
Viscosity @ 25°C (Brooksfield DV-2+ @ 20RPM Spindle 3)	cP	ASTM-D 4878	1100	190	900
Flash Point	°C		>200	>200	>200
Mixing Ratio @ 22°C	by weight		100	60	
Mixing Ratio @ 22°C	by volume		100	50	
Potlife @ 22°C	Min.				5

#### Physical Properties

Properties	Unit	Test Method	Typical Values
			Mixture
Shore Hardness	Shore D	ASTM-D 2440	65 – 75
Tensile Strength (7 days)	psi	ASTM-D 412	3500
Elongation @ Break (7 days)	%	ASTM-D 412	20
Acid/Base Resistance			Very Good

## SAFETY/PRECAUTIONS

**COMBUSTIBLE LIQUID AND VAPOR. CORROSIVE AND IRRITATING TO EYES, SKIN AND LUNGS. MAY BE AGGRAVATING TO ASTHMA, BRONCHITIS, EMPHYSEMA, SKIN ALLERGIES, AND ECZEMA. HARMFUL OR FATAL IF SWALLOWED.**

Use only with adequate ventilation. Do not wear contact lenses when handling. Wear chemical resistant gloves and eye protection when in contact. Keep container tightly closed when not in use. Have an eye wash station and emergency shower available.

**First Aid:** See MSDS

**CARE MUST BE TAKEN TO PREVENT ENVIRONMENTAL CONTAMINATION FROM THE USE OF THIS MATERIAL. THE USER OF THIS MATERIAL HAS THE RESPONSIBILITY TO DISPOSE OF UNUSED MATERIAL, RESIDUES, AND CONTAINERS IN COMPLIANCE WITH ALL RELEVANT LOCAL, STATE AND FEDERAL LAWS AND REGULATIONS REGARDING TREATMENT, STORAGE AND DISPOSAL FOR HAZARDOUS AND NON-HAZARDOUS WASTES.**

Empty containers should be decontaminated and either passed to an approved drum recycler or destroyed.

**Emergency Contact Number: Canutec (613)-966-6666**

## SURFACE PREPARATION

All surfaces must be clean, dry and free from dust, dirt, oil and other foreign materials before application of coatings. All loose paint, mortar spatter, mill scale and rust must be thoroughly removed from the surface. Voids and pits should be filled prior to application. If applying to new steel, or a smooth surface, the surface should be blasted or etched, forming a surface profile to which the coating can adhere to.

## APPLICATION/DIRECTIONS

Material preparation is critical:

**Part B needs to be mixed** with a rotary mixer for at least 30 minutes to ensure it is evenly blended. Both A & B need to be protected from atmospheric moisture by the use of **dry air desiccant** canister for air entering the drums when in use.

Air compressor requirements:

**Dry air is a must for consistent quality.** Install auto bleeders on compressor and water separators and desiccant dryers close to the spray equipment. The silica-gel changes color from purple to pink when exposed to water.

Apply only to properly prepared substrate (see your industry's published guidelines).

Application temperature is 18-30 °C (59-86 F). **Coatings should not be applied unless surface is a minimum of 5 °C (41 F) above the dew point.**

## STORAGE/SHELF LIFE

Material should be stored in a tightly closed container. Keep in a cool, dry, and well ventilated place. Keep away from incompatible materials. Avoid contact with water or moist air. Keep at a temperature between 20-25°C (75-77°F) for quality reasons. This product has a shelf life of approximately 6 months.

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