International Polyurethane Systems

P.O. Box 3309
5590 - 46th Ave. SE
Salmon Arm, B.C.
V1E 4S1 Canada

Tel: (250) 832-5142
Fax: (250) 832-9338
sales@ipsinc.com
www.ipsinc.com

BINDER D1010/2 (FAST-SET) MATERIAL DATA SHEET

PRODUCT DESCRIPTION

D1010/9 is a low viscosity, one component polyurethane binder based on aromatic MDI, which cures by reaction with atmospheric moisture. This is our **fast** curing speed binder, which is primarily used in press-molded and some pour-in place binder applications where humidity is less than 35% and temperatures in the 0-15 Celsius range with rubber crumb. D1010/2 can also be used as steel or concrete primer.

FEATURES

There are several advantages to using polyurethane systems:

- Durable
- Highly chemical resistant
- Flexible
- Appearance
- Environmentally friendly (0 VOC emission)
- Mixed, cured wastes are non hazardous
- Reduced time (cures quickly)

TECHNICAL DATA

Chemical Properties

Properties	Unit	Test Method	Typical Values
Appearance			clear/amber
Isocyanate Content	%	ASTM D2572-87	11
Density	g/cm^3	ASTM-D 1475	1.10 – 1.15
Viscosity @ 25°C (Brooksfield DV-2+ @ 20RPM Spindle 3)	cP	ASTM-D 4878	3800 - 4800
Flash Point	°C		>200
Mixing Ratio	weight		15-20
Working Time	minutes		15-45
Tack Free @ 22°C	hours		3-6

Curing Profile and Application

Reaction starts with atmospheric moisture. Higher humidity levels will reduce working time, and higher temperatures will reduce curing time. Moisture content in the rubber crumb will also be a factor.
Test procedure:

- Before starting any job, it is important to record temperatures and humidity levels, then do a small test by combining rubber and 20% binder in a small cup. Mix well and pour out onto your surface. Let stand for 30 min. Test for workability. This will be your guide on what the curing profile for the large job will be.

- If no curing appears after 2 hours, it may be necessary to add additional moisture (ie: add up to 1% water or mist water over the surface) to boost the reaction, as you want the curing to be well on its way by the end of the day. Requirements may change as your environment changes during the day.

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 polyurethane mixture.

APPLICATION/DIRECTIONS

Mix 15-20 parts by weight MDI binder into rubber crumb mixture until completely wetted. Pour mixture into location using trowel and tamp out to level. Continue mixing and pouring, making sure to start where you left off ensuring bonding. Full curing will take place 12-24 hours after application. For molding applications, curing time can be reduced to 1 hour or less, by use of additional water/catalyst.

Clean up tools with lacquer thinner.

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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