

## TECHNICAL DATA SHEET PremARC® 40-60 Aromatic Urethane Binder

### Description

PremARC® 40-60 is a solvent-free, moisture-curing, one-component, polyurethane *binder* that is designed for the production of rubber safety surfaces. As with any product, the use of PremARC® 40-60 must be tested by the user in advance to a large scale application (laboratory and field testing are strongly recommended) to determine the suitability of the product for the specific application. It is specifically designed for application on playgrounds and other sport surfacing using appropriate recycled rubber, EPDM and TPV granules.

### Application

#### COVERAGE/USAGE

Curing takes place at ambient temperature by reaction with atmospheric moisture. Higher temperatures, moisture and the addition of accelerators will shorten the cure time. An ambient humidity of 40 – 80% is recommended for appropriate cure. Relative humidity below 40% may extend the cure profile and may necessitate the addition of water and/or accelerator. The temperature should not fall below 40°F during curing. Application for top surfaces (cap), we recommend a ratio of 18-22 parts binder to 100 parts of rubber (18-22%). For base layers, consumptions of 15 - 18% are typical. The amount of binder to be used will be dependent upon the shape and size of the rubber as well as dust content. Higher surface area, smaller particle size distribution and higher dust content will necessitate a higher consumption of binder. The viscosity of the binder is considerably lower at the higher temperatures encountered during the summer.

### UV Stability

As with any urethane based on aromatic isocyanates, this product is not UV stable and may show discoloration after exposure to direct sunlight. This effect is magnified when using urethanes of vibrant colour's or when used in tandem with rubber granules of lighter or more vibrant shades. Mechanical properties are not impacted. (laboratory and field testing are strongly recommended)

### STORAGE

Store in a cool, dry place, indoors and avoid unnecessary opening of containers. Do not add any other materials to this product without written permission from the manufacturer. Once opened PremARC® 40-60 will start to cure and a skin will form. Partly used containers should be resealed immediately and re-used as quickly as possible.

### Health and Safety

Treatment/Decontamination Rinse thoroughly with a strong aqueous detergent solution and LEAVE PERMANENTLY OPEN. The reaction of isocyanates with water leads to the formation of carbon dioxide, which can result in pressure build-up in closed containers. This treatment converts any liquid residue into an inert solid. It is advisable to superimpose a 'Decontaminated' label after treatment.

### Typical Properties

<b>System type:</b>	<b>Aromatic Polyurethane Binder</b>		
Appearance:	Amber		
Cure Type:	Moisture Cure		
Solids by weight:	100%		
Solids by volume:	100%		

#### Typical Properties at 68°F:

Specific Gravity:	DIN 53217	g/cm <sup>2</sup>	1.07
Density:	DIN 53217	lbs/gal	8.92
Viscosity:	DIN 53018/1+2	mPa-s	3300

### Handling

Wear proper protective equipment at all times. Avoid contact with skin and eyes. In the event of eye contact, flush eyes thoroughly with water and seek medical attention. Consult SDS before handling and observe all recommended safety and handling practices. Pressure can build up in new and previously opened containers, open all containers carefully. Protect open containers from moisture. Dispose of contaminated materials and empty containers in accordance with Federal, State, and Local regulations.

### Customer Notice

ARC encourages its customers to review their application of ARC products from the standpoint of human health and environmental quality.

**NOTICE:** The information and data contained herein do not constitute sales specifications. The product properties may be changed without notice. No liability, warranty or guarantee of product performance is created by this document. It is the Buyer's responsibility to determine whether ARC products are appropriate for Buyer's use and to ensure that Buyer's workplace and disposal practices are in compliance with applicable laws and regulations. No freedom from any patents owned by ARC or other industrial or intellectual property rights is granted or to be inferred.



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