

Ref: 4751DS
Issued: 15th October 2019

PU4751 Aliphatic Rubber Crumb Binder

DESCRIPTION

PU4751 is an HMDI based aliphatic polyurethane prepolymer for use as a rubber crumb binder. It has a fast cure speed and as such is ideal for play areas. PU4751 gives excellent UV resistance.

PU4751 has been formulated as a flexible moisture curing binder for in situ recycled rubber crumb shock pads and EPDM play surface top coats, which are laid by hand.

PROPERTIES

Criteria	Typical Value
Colour:	Unpigmented (clear)
Viscosity at 23°C:	2500 – 4000 mPa.s
NCO content:	ca 11.5 – 12.5 %
Application Temperature:	5 – 40°C
Relative Humidity:	40 – 90%
Cure Times:	7 – 8 hours at 20°C (with 0.01% D4861) Accelerator

APPLICATION

Surface Preparation

Ensure the ground to be coated is well prepared. All loose material should be removed. Ensure the surface is free from contamination such as oil and grease. The surface should also be dry.

Cure Speed Modification

D4861 Rubber Crumb Binder Accelerator (1k) is used to modify the cure time, this is particularly important when PU4751 is being installed below 20°C.

To achieve 8 hours cure:

Temperature (°C)	D4861 Accelerator Addition	
	%	ml per 9kg PU4751
20	0.01	1
15	0.10	9
10	0.21	19
5	0.33	30

To achieve 6.5 hours cure:

Temperature (°C)	D4861 Accelerator Addition	
	%	ml per 9kg PU4751
20	0.16	14
15	0.30	27
10	0.41	37
5	0.55	50

To achieve 4 hours cure:

Temperature (°C)	D4861 Accelerator Addition	
	%	ml per 9kg PU4751
20	0.32	29
15	0.46	41
10	0.58	52
5	0.72	65

Shock Pad Base Layer / Top Coats

Mix rubber granules and binder PU4751 at desired ratio. Ensure the volumetric ratio of binder addition is considered as the bulk density of rubbers will vary. Rubber granules should be dry in order to stop accelerated cure times and foaming of the binder.

For adequate mixing, a high torque rotary mixer should be used. Rubber and binder should be mixed for upto 5 minutes ensuring all the rubber is coated.

The product can then be laid out on a prepared surface and compacted using a hand trowel or weighted roller. Ensure an even compaction of the rubber. A release agent should be used on all tools to avoid adhesion of the binder to the tools. Ensure all equipment is cleaner well after use.

STORAGE

Must be stored in closed, air-tight containers - the product reacts with moisture, leading firstly to an increase in viscosity and finally gelation.

- The containers should be kept cool
- Storage at elevated temperatures will result in a viscosity increase.

Storage life if stored under the recommended conditions: 12 months.

HAZARDS DURING TRANSPORT AND STORAGE

For information, please refer to Health and Safety Data Sheets for this product.