

## PU BINDER 1118

### POLYURETHANE BINDER

#### GENERAL CHARACTERISTICS

100% solids, aromatic polyisocyanate-prepolymer moisture-curing binder based on diphenylmethane diisocyanate. It is MDI based and solvent free. It exhibits excellent adhesion to all rubber granules and gives a strong performance both in terms of tensile strength and durability.

It is mixed with **RECYCLED RUBBER 858** or **EPDM granules** for the creation of the elastic safety floorings **SAFEPOL MULTICOLOR** or other flexible rubber floorings, ideal for playgrounds, athletic tracks, schools etc.

**PU BINDER 1118** cured with the air humidity, has low viscosity, is solvent free. **PU BINDER 1118** combines and bonds SBR or EPDM rubber granules, RIM components, polyurethane granules and sponge particles. Also it can be used as lining for insulation and for pasting

#### TECHNICAL DATA

Test	Method	Device	Value
Density (20°C)	PK.DT.01	Pycnometer	: about 1,09±0.1 gr/cm <sup>3</sup>
Viscosity (25°C)	PK.DT.08	NDJ-1 Rotational Viskometer	: 8000±1000 mPas
Isocyanate NCO value %	PK.DT.10	Potentiometric Titration	: 10.5±1
Colour			: Clear/pale yellow

#### PREPARATION-APPLICATION

Can be used for kids playground, running tracks, sports grounds, walkways and offices.

**Moulded in production:** Rubber granules and binder are mixed, taken into moulds, and then pressure is applied. Rigid parts are obtained like in the form of different types of tiles. After that in the application area, by adding together, the ground is covered. 160 bar pressure, mold temperature of 130 degree gives reasonable results in 12 - 15 minutes. In molding applications, binder content should not fall below %5.

**On-site applications:** Applied on dry surfaces, free of materials that might prevent bonding e.g. dust, loose particles etc (in case of asphalt or concrete). The success in the application

depends on the right preparation of the underlay and use of the material.

- **Good, dry** cleaning of the surface from dust and residues.
- Priming of the surface with the special **POLYURETHANE PRIMER 870** in two layers. Consumption: 250-400 gr/m<sup>2</sup>, depending on the absorption of the underlay. It is recommended that the second layer should be applied in sections each time, right before the application of **PU BINDER 1118** and **RECYCLED RUBBER 858** in order to ensure proper adhesion.
- Good mixing of the **PU BINDER 1118** and the **RECYCLED RUBBER 858**. Mixing should be performed using a low revolution mixer (300-600 rpm) for 1-2 min. Stirring of the mixture should be performed thoroughly near the sides and bottom of the container in order to achieve homogeneity.
- Following, the mixture is poured on the surface and spread on the desired thickness using paving machine or by hand. Consumption: 6,5kg/m<sup>2</sup>/cm.
- Small irregularities in the surface may be removed by rolling the surface using a metallic cylinder.
- In case there will be on top an additional layer of **EPDM 856 + PU BINDER 1118** (e.g. in wet-pour playgrounds), the next day, after hardening of the mixture of the **PU BINDER 1118** and the **RECYCLED RUBBER**, follows priming of the surface with the special **PU PRIMER 870** in one layer. Consumption: 200 gr/m<sup>2</sup>. **PU PRIMER 870** is applied in sections of the underlay right before the application of **SAFEPOL MULTICOLOR (PU BINDER 1118 and EPDM 856 mixture)** for the proper adhesion.
- The application procedure for **SAFEPOL MULTICOLOR (PU BINDER 1118 and EPDM 856 mixture)** on top of asphalt or waterproof concrete directly is the same as for **SAFEPOL (the mixture of PU BINDER 1118 and RECYCLED RUBBER)**,
- Good mixing of the **PU BINDER 1118** and the **EPDM 856** and application of the mixture using paving machine. Consumption: 10kg/m<sup>2</sup>/cm.
- Finally any small irregularities on the surface may be removed by rolling the surface using a metallic cylinder.

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## RATIO MIXTURE

Recommended: 16% **PU BINDER 1118** and 84% **RECYCLED RUBBER 858**.  
20% **PU BINDER 1118** and 80% **RECYCLED RUBBER 858** for hot climates like GCC countries.  
20% **PU BINDER 1118** and 80% **EPDM 856**

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## PACKAGING

220kg in barrels.

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## STORAGE

8 months in unopened original packaging stored in standard room conditions.

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## REMARKS

The floor must be smooth, dry and clean. Must be removed from oil, dirt, rust and burr. Do not add any foreign material. In application, if ambient and surface temperatures are under +10 degrees Celsius or below +30 degrees Celsius, the optimum temperature must be waited. Concrete humidity should not be above 4%, ambient humidity should be at least 40% and most 80%. To begin the application, must wait for the appropriate humidity

Working time of **PU BINDER 1118** decreases when ambient temperature rises.

Prolonged storage of partially used containers containing **PU BINDER 1118** must be avoided as contact with atmospheric moisture will result in skinning and clouding of the product.

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## CAUTION

The application must take place in well-aired places using protective gloves. Skin or eye contact must be avoided, otherwise wash carefully with soap and water.

**For more information consult the material safety data sheet.**

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The information given here is true, represents our best knowledge and is based not only on laboratory work, but also on field experience. However, because of numerous factors affecting results we offer this information without any guarantee and no patent liability is assumed. For additional information or questions, contact the technical department of KDF LTD.