PORPLASTIC T770 **Technical Data Sheet**

Product 02277001 or 02277010

BINDER for rubber and EPDM mats, single component PUR, moisture curing

1 General Data

Application Fields

PORPLASTIC T770 is used for elastic sports surfaces as binder for in situ base mats with recycled rubber granules and for coloured EPDM granule mats. Typical uses are ball game courts, multi-purpose and tennis courts, school playgrounds and athletic tracks.

Product Description

PORPLASTIC T770 is an unpigmented and solvent free single component PUR-binder of medium viscositiy. It is based on MDI/TDI with a content of monomeric TDI lower than 0,5% and suitable for high and low temperature applications.
The defined viscosity of PORPLASTIC T770 effects an excellent mixing with rubber granules while there is hardly any run-off from the granules. Another characteristic is the long curing and therefore application time allowing day construction joints to be easily and correctly done.
PORPLASTIC T770 is moisture curing.

Tested Sports Surfacing Systems

Binder for base mats in PORPLASTIC***RACE*** systems according to IAAF or DIN 18035-6:
- PORPLASTIC***SW competition*** (Type D)
- PORPLASTIC***SB economic*** (Type A)
- PORPLASTIC***2S game+track*** (Type B)

Binder for highly elastic base mats for
- PORPLASTIC***FUN*** systems

Binder for EPDM layers for
PORPLASTIC***RACE*** top layers (DIN 18035/6):
- PORPLASTIC***2S game+track*** (Type B)
- PORPLASTIC***EP court*** (Type C)

PORPLASTIC***FUN*** top layers

Technical Support

For detailed descriptions of VIACOR systems see VIACOR system data sheets or contact our technical support.
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(A) Technical Data

	Liquid (Binder)	
1.	Density (23°C) (DIN 53217)	1.06 g/cm³
2.	Viscosity (23°C)	ca. 3 200 mPas
3.	Packing size	215 kg drum 1000 kg IBC
4.	Colour	transparent - yellowish
5.	Shelf life / Storage	12 months at 10–25°C avoid direct sunlight
6.	NCO content (DIN 53185)	ca. 9 %
7.	Substrate and application temperature	10-35°C (min. 3 ° C above dew point)
8.	Permissible relative humidity	min. 40% – max. 90%
9.	Can be walked on (depending on rel. humidity) at 12°C at 23°C at 30°C	 after 48 – 72 hours after 24 – 48 hours after 18 – 24 hours
10.	Setting point	5ºC
11.	Material consumption elastic base mat for RACE systems (10 mm layer thickness) EPDM-top layer for RACE and FUN (10 mm layer thickness) highly elastic base mat for FUN -systems (minimum layer thickness 20 mm	 ca. 1.2 kg binder + ca. 6.5 kg granules (grain size 1 – 4 mm) ca. 2.0 kg binder + ca. 10 kg EPDM (grain size 1 – 3 mm) ca. 1.2 kg binder +ca. 13 kg granules (grain size 2-6 mm)

Manufacturer:
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2 Processing Instructions

Substrate Preparation

The dry and load bearing substrate (asphalt or concrete) has to be clean and free of loose particles and substances which impair adhesion such as oil, grease, paint or other contaminants. For achieving an optimal adhesion between the elastic mat and the substrate it is necessary to apply PORPLASTIC P270 as primer on asphalt. The installation of the rubber granule mat should then be realized 4 – 6 hours after the primer.
For concrete VIASOL EP-P210 primer is imperative, the rubber granule mat can be applied after 12-16 h.

Processing

The binder is mixed with dry recycling or EPDM granules (size 1-4 or 1-3 mm for meeting DIN and IAAF standards). Use a forced mixer rotating at approximately 300 rev/min for 3 – 5 minutes. Ensure that the mixer reaches the sides and bottom areas of the mixing vessel. Processing temperature should be between 15 – 25°C.
The mixture is then spread on the prepared substrate and carefully compacted in order to achieve good surface strength by using a specially designed paving machine.
Construction joints should be done before the material has significantly cured with particular attention to avoid cracks and weak parts in these areas. Joints may be reworked with tamper and trowel and if already cured be primered with PORPLASTIC P270 before the next installation part.

Mixing ratio (always in parts by weight)
-for elastic layers in RACE systems:
recycling granules (1-4 mm) and binder **100 : 18**
- for highly elastic layers in FUN systems:
recycling granules (2-6 mm) and binder **100 : 9**
- for EPDM top layers in RACE / FUN systems:
EPDM granules (1-3 mm) and binder **100 : 20**
These proportions have to be kept as otherwise a decrease in mechanical characteristics will be the consequence and the requirements of DIN 18035 and IAAF might not be met.

Influence of temperature and humidity:
At low temperatures and humidity, the speed of reaction of the binder is reduced resulting in a longer pot life, recoating interval and open time. The viscosity increases requiring increased mixing time and a higher consumption of binder.In contrary the speed of reaction is accelerated at high temperatures and humidity and the converse ist true.
When the humidity is below 40% the mat may be sprayed with water to avoid unacceptable curing times, which could impair the quality of the elastic layer.

Rubber / EPDM Granules
We recommend to use only recycling rubber or EPDM granules that have been tested and shown to be suitable for the application with PORPLASTIC T770. In any case ensure that granules are dry as moisture will accelerate the curing of the binder making installation more difficult or even impossible and may result foaming in the binder, leading to an uneven surface and a week mat.

Colour changes at the surface caused by the exposure to UV-light, can occur within the first hours, days or weeks after installation. They will normally redecline due to the abrasion of daily use of the surface. Especially in the case of sensitive colours (e.g. blue, grey, beige etc.) a supplementary and light stable sealing in the corresponding colour is the best prevention.

Safety Instructions

For health and safety protection, transport regulations and waste management please consider the Material Safety Data Sheet. Users are advised to wear gloves and eye protection when mixing or applying PORPLASTIC T770. PORPLASTIC T770 is non-hazardous in its cured condition.

Disclaimer

All information in this technical data sheet is based on our current knowledge and experience. This does not release the applicator from performing their own tests as many application factors, beyond our control, affect the application of our product. No guarantee of characeristics or suitability for a special purpose can be derived from this information. All present data, descriptions, drawings, photos, ratios, weights etc. are subject to change without prior notice and do not represent contracted characteritics of the product.
Due to different materials, sub-bases and working conditions, no guaratee of an application result or any liability claims can be derived from these details or from an unwritten technical advice except for liability claims based on:
-damage to life, body or health resulting from a negligent violation of obligations or a deliberate or negligent vialation of obligation of a legal representative or assistant and
-if we are charged with intention or gross negligence.

The user has to test the products for their intended use. The user is responsible for following existing laws and orders and for observing third party trade mark rights.

As all VIACOR data sheets are updated on a regular basis it is the users responsibility to obtain the most recent issue (see www.viacor.de or contact us directly).

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