FIRMA
Z SYSTEMEM JAKOŚCI
CERTYFIKOWANYM PRZEZ DNV GL
= ISO 9001 =

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TECHNICAL DATA SHEET

OUTDOOR SPORTS SURFACE
TETRAPUR ENZ IVS TYPE

Polyurethane coating of "sandwich" type, flexible, seamless, anti-slide, water permeable, two-layer, machine installed "in situ" (directly at the construction site). Sports shoes with spikes are allowed.

Total thickness of the surface: 14 - 16 mm
The colour of surface at customer's request.

Application:
- multi-purpose sports fields (recommended)
- athletics tracks (optional)
- outdoor sports venues and recreational centers

The surface meets:
- technical parameters according to PN-EN 14877:2014 standard
- hygienic attestation of the National Institute of Hygiene
- tests on contents of trace elements of heavy metals

Components needed for casting the surface:
- TETRAPUR 25 or TETRAPUR 25A – the primer
- TETRAPUR 154 – 1 component bonding agent
- TETRAPUR 144 – 1 component bonding agent
- SBR rubber granules 1-4 mm
- EPDM granules 1-4 mm

Recommended substructures:
- concrete
- asphaltic concrete
- mineral aggregate layer

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Application Method:

1. **Substructure condition** – the base course has to be stable, firm, dry, clean and load bearing, free of loose and brittle particles and substances which impair adhesion, such as oil or grease etc. If the sub-structure does not meet the above mentioned requirements, it has to be blast cleaned, planed or grinded. The moisture of concrete substructure should not be higher than 4% (to be checked by CM equipment). The substructure temperature has to be at least 3°C above the current dew point.
2. **Priming layer** – the substructure has to be primed to improve its mechanical properties and adhesion with the mat.

   - Apply the primer TETRAPUR 25 on the concrete substructure by means of paint roller or spray device and leave it for 4 -8 hours for solvent evaporation before casting the rubber mat, or
   - Apply the primer TETRAPUR 25A on the asphaltic concrete substructure by means of paint roller or spray device and leave it for 4 -24 hours for solvent evaporation before casting the rubber mat, or
   - Apply the system TETRAPUR WS on the mineral aggregate substructure. This system is a mix of rubber granulate SBR, mineral aggregate and the binder TETRAPUR 154 (for details see Technical Data Sheet of TETRAPUR WS).
3. **Base mat** – mix thoroughly SBR rubber granules with polyurethane binder TETRAPUR 154 in the special mixer so that each granule is covered with the binder. Cast the prepared mixture on the primed substructure by means of mechanical spreader and leave until it hardens. The curing time depends on the temperature and humidity of the air and the base.
4. **Top layer** – mix thoroughly EPDM rubber granules with polyurethane binder TETRAPUR 154 or TETRAPUR 144 in the special mixer so that each rubber granule is covered with the binder. Cast the mixture prepared in this way on the base mat by means of mechanical spreader and leave until it hardens. The curing time depends on the temperature and humidity of the air and base.
5. **Line marking** – after hardening of the system make line marking using a suitable paint according to the design.
6. To obtain the best parameters it is recommended to install the surface in the temperature range of 10 - 30°C. In good weather conditions it is allowed to install the surface over 7°C.

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Structure of the surface 16mm thick

SURFACE		Components	Theoretical consumption	Layer thickness
PRIMING LAYER	Primer	TETRAPUR 25 (concrete)	0,2 – 0,25 kg/m^2	film
		TETRAPUR 25 A (asphaltic concrete)	0,15 – 0,2 kg/m^2	
BASE LAYER	SBR rubber mat	TETRAPUR 154	1,1 kg/m^2	8 mm
		Granules SBR 1-4 mm	5,2 kg/m^2	
TOP WEARING LAYER	EPDM rubber mat	TETRAPUR 154 or TETRAPUR 144	1,6 kg/m^2	8 mm
		Granules EPDM 1-4 mm	7,8 kg/m^2	
CLOSING LAYER	Closing lacquer*	TETRAPUR 90	0,25-0,3 kg/m^2	film
	Line paint	TETRAPUR 91	20-30 g/rm	

* as an option, to prevent the surface from abrasion and UV radiation, it is recommended to spray it twice with the PU lacquer

NOTE: for installing the surfaces in UV sensitive colours like grey, blue, beige, violet etc. it is recommended to apply the UV stable binders at the top layer to avoid the change of colour tint.

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Selected technical properties of the surface:

PROPERTIES	RESULTS	STANDARD
Tensile strenth, N/mm^2 (MPa)	0.907	≥ 0.4
Elongation at break, %	71	≥40
Vertical deformation on concrete substrate, mm	2.0	≤ 3
Abrasion resistance by Taber, g	1.14	≤ 4
Resistance to aging evaluated by change of colour (grade in the grey scale)	4	≥ 3
Skid resistance, pendulum test, CEN-slide, C-scale, PTV-units - dry surface	106	80 - 110
- wet surface	57	55 - 110
Shock absorption, force reduction on the concrete substrusture, %	35,2	35 - 50

The results presented above were obtained with the laboratory samples made with use of the granules of Geyer&Hosaja made.

Date of issue: 20.10.2017