

- ✓ **Produced according to EN 15836-2**  
Plasticized poly(vinyl chloride) (PVC-P) membranes for inground swimming pools  
Part 2: Reinforced membranes of nominal thickness equal to or greater than 1.5 mm
- ✓ **Produced according to EN 13967 | CE-certification 1213-CPR-036**  
Flexible sheets for waterproofing - Plastic and rubber damp proof sheets including plastic and rubber basement tanking sheet | Type of application: Damp proof sheet Type A and Tanking sheet Type T
- ✓ **Approval for the use in indoor and outdoor swimming pools**  
According to KSW recommendations of the German Health Authority (BGA)
- ✓ **Harmless for health according to EN 71-3**  
Safety of toys - Part 3: Migration of certain elements (heavy metals)
- ✓ **Lowest fume emission during welding process**  
Tested and verified by Fraunhofer Institute for Material and Beam Technology IWS
- ✓ **Based on pure virgin raw material**

## CHARACTERISTICS

- Highest non-slip class
- High-quality and special acrylic surface coating
- High resistance to ageing
- Stabilized against UV rays
- Stabilized against chlorinated water
- Resistant to algae and microorganisms
- Resistant to permanent water temperature of max. + 33 °C
- Hot air weldable
- High mechanical strength with polyester fabric
- High dimensional stability
- REACH conform
- Not resistant to tar, bitumen, oil, fuel and other solvents
- Not resistant in direct contact to other plastics, e. g. polystyrene

## TECHNICAL DATA

ESSENTIAL CHARACTERISTICS	PERFORMANCE	TEST STANDARD
<b>Thickness</b>	1.90 mm ± 10 %	EN 1849-2 <sup>1)</sup>
<b>Mass per unit area</b>	2.00 ± 0.1 kg/m <sup>2</sup>	EN 1849-2
<b>Width</b>	1.60 m ± 5 mm	EN 1848-2
<b>Roll length</b>	20 m - 0 / + 1.5 %	EN 1848-2
<b>Flatness</b>	≤ 10 mm	EN 1848-2
<b>Straightness</b>	≤ 30 mm	EN 1848-2
<b>Water absorption</b>	≤ 1 % of mass	EN ISO 62 Method 1
<b>Tensile properties:</b>		
- <b>Maximum tensile strength</b>	≥ 1100 N/50 mm	EN 12311-2 A
- <b>Elongation</b>	≥ 18 %	EN 12311-2 A
<b>Delamination resistance at peeling</b>	≥ 80 N/50 mm	EN 12316-2
<b>Tear resistance (nail shank)</b>	≥ 450 N	EN 12310-1
<b>Dimensional stability (80 °C / 6 h)</b>	≤ 1.5 %	EN 1107-2

<sup>1)</sup> Mechanical measurement including the 3D surface profile

ESSENTIAL CHARACTERISTICS	PERFORMANCE	TEST STANDARD
<b>Watertightness (72 h / 400 kPa)</b>	Pass	EN 1928 B
<b>Durability of watertightness:</b>		EN 1296
- against ageing	Pass	EN 1928 B
- against chemicals	Pass	EN 1847
		EN 1928 B
<b>Resistance to impact</b>	≥ 300 mm	EN 12691 A
<b>Resistance to static loading (24 h / 20 kg)</b>	≥ 20 kg	EN 12730 B
<b>Joint strength</b>	≥ 1000 N/50mm	EN 12317-2
<b>Resistance to foldability at low temperature (- 5 °C)</b>	No cracks	EN 495-5
<b>Visible defects</b>	Pass	EN 1850-2
<b>Water vapor permeability μ</b>	17000 ± 30 %	EN ISO 12572
<b>Non-slip class C / ≥ 24°</b>	Pass	EN 13451
		DIN 51097
<b>Resistance to artificial aging (3000 h)</b>	≥ 3 according EN 20105-A02	EN ISO 4892-2:2006 Method A cycle No. 1
<b>Resistance to microorganisms</b>	Mass loss ≤ 1 %	EN ISO 846:1997 D
<b>Resistance to streptovercillium reticulum bacteria ATCC 25607</b>	No stains	EN ISO 846:1997 C
<b>Chlorine resistance</b>	Rating ≥ 4	EN 15836 Annex C
<b>Resistance to staining agents</b>	Rating ≥ 4	EN 15836 Annex D

## STORAGE AND APPLICATION INSTRUCTIONS

Store the rolls in a horizontal lying position and protected against solar / UV radiation, rain, snow, ice and other weather influences at temperatures between + 5 °C and + 35 °C. Protect the product also on-site against direct weathering influences.

The processing should take place at temperatures higher than + 10 °C. The waterproofing membrane must be installed in accordance to our Installation Manual for reinforced swimming pool membranes. The welding of all membrane overlaps shall be made by using hot-air welding machines and pressure rollers or automatic heat welding machines.

## LEGAL NOTICE

The customer/installer has to check the applicability of the product for the intended use. He is responsible for the proper application, usage and processing of the product.

We assure the correct quality of our products according to our conditions of sale and delivery.

All declarations comply with our recent knowledge.

In behalf of the warranty, the distributor has to secure that his customers are informed about our installation and maintenance instructions.

## ECOLOGY, HEALTH AND SAFETY (REACH)

This product is an article as defined in article 3 of regulation (EC) No 1907/2006 (REACH). It contains no substances which are intended to be released from the article under normal or reasonably foreseeable conditions of use.

A safety data sheet following article 31 of the same regulation is not needed to bring the product to the market, to transport or to use it.

Based on our current knowledge, this product does not contain SVHC (Substances of Very High Concern) from the Candidate List or Annex XIV published by the ECHA (European Chemicals Agency) in concentrations above 0,1 % w/w).