TPU membrane for drinking water

Flocea pillow tanks for water intended for drinking • membrane available on quotation

1 Composition and properties

Property	Value	Method
Base fabric	high-tenacity polyester	-
Coating	polyether TPU (thermoplastic polyurethane)	-
Thickness	0.9 mm	DIN 53353
Weight	1,019 g/m²	DIN 53352
Tensile strength	warp 3,208 N/5 cm • weft 3,113 N/5 cm	ISO 1421
Tear strength	warp 362 N • weft 315 N	trapezoid method
Coating adhesion	175 N/5 cm	ISO 2411
Operating temperature	–20 °C to +70 °C	-

Average values measured at the end of production, tolerance ±10 %. As with any membrane, some properties decrease slowly with storage and use.

2 Welds

- Panels are joined by thermal welding.
- Measured weld strength: **1,818 N/25 mm** (requirement ≥ 1,700 N/25 mm). Failure occurs outside the weld: the seam is stronger than the membrane itself.

3 Contact with drinking water

- Test report from an accredited laboratory dated **16 September 2026** on the hygiene of materials in contact with drinking water: **20 out of 20 criteria compliant**.
- No change in colour, turbidity, odour or taste of the water, no visible deposit, stable pH.
- No release above the limits for arsenic, cadmium, hexavalent chromium, aluminium, lead, mercury, barium, antimony, tin, phenols and carbon tetrachloride.
- Watertightness: tank full for 24 hours between –30 °C and +70 °C, no leak.

4 PFAS and fluorinated treatments

- The fabric and its TPU coating receive **no fluorinated lacquer or treatment (PVDF) and no acrylic**, as this type of treatment is incompatible with the thermal welds that form the tank.

Good to know: the tank stores the water, it does not make it drinkable. Quality depends on the source and on the whole installation (fittings, valves, pipework). In winter, water expands by about 9 % when it freezes: do not leave the tank full in hard frost.