



ISTANBUL UNIVERSITY
Engineering Faculty
Chemical Engineering Department



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TARDIGRADE PCPE 270

Two Component, Solvent Free, Polyurethane Based Self-Leveling, Elastic Coating and Waterproofing Material

Product Information:

Appearance / Color

Resin – part A : gray, liquid
Hardener – part B : red brown, liquid

Technical Information

Chemical Structure : Polyurethane

Density (ASTM D792 / ISO 1183 / DIN 53479)

Resin – part A : 1.390 kg/l
Hardener – part B : 1.200 kg/l
Mixed resin A + B : 1.340 kg/l

Viscosity (ASTM D2555 / ISO 2555 / DIN EN ISO 2555)

Resin – part A : 9200 mPa·s
Hardener – part B : (DIN CUP 4) 13 s
Mixed resin A + B : 3500 mPa·s

Water Absorption (ASTM D570-98 / ISO 62 / DIN 53495)

– (0.002%).

Pot Life

50 minutes (23 °C).



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Mechanical / Physical Properties

TEST	METHOD			VALUE		
				Average	Maximum	Minimum
Compressive strength	ASTM D695	ISO 604	DIN 53454	–	–	–
Flexural strength	ASTM D790	ISO 178	DIN 53452	–	–	–
Maximum force	ASTM D638	ISO 527	DIN 53457	234 N	239 N	228 N
% elongation at break	ASTM D638	ISO 527	DIN 53457	200%	209%	192%
Bond strength	ASTM D4541	ISO 4624	DIN 4624	3.12 MPa	4.08 MPa	2.94 MPa
Shore A hardness	ASTM D2240	ISO 868	DIN 53505	80	83	77

Test results for Tardigrade PCPE 270 Two Component, Solvent Free, Polyurethane Based Self-Leveling, Elastic Coating and Waterproofing Material.





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Chemical Resistance


Chemicals	Values
HYDRCHLORIC ACID 25%	2
HYDRCHLORIC ACID 10%	3
NITRIC ACID 25%	2
NITRIC ACID 10%	2
FORMIC ACID 25%	3
FORMIC ACID 10%	3
ASETIC ACID 25%	3
ASETIC ACID 10%	3
SULFURIC ACID 25%	3
SULFURIC ACID 10%	3
LACTIC ACID 25%	3
LACTIC ACID 10%	3
ETHYL ALCOHOL	3
AMMONIA	3
PERCHLOROETHYLENE	3
DIESEL FUEL	3
ACETONE	3
FUEL THINNER	3
HYDRAULIC OIL	3
THINNER	3

Excellent 3 Good 2
Low 1 Not resistant 0

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