



ISTANBUL UNIVERSITY
Engineering Faculty
Chemical Engineering Department



Sayı: B.30.2.İST.0.17.81.00/693 / 2056

29.10.2014

TARDIGRADE ERIR 980

Two Component, Solvent Free, Epoxy Based Injection Material

Product Information:

Appearance / Color

Resin – part A : transparent, liquid
Hardener – part B : pale yellow, liquid

Technical Information

Chemical Structure : Epoxy

Density (ASTM D792 / ISO 1183 / DIN 53479)

Resin – part A : 1.080 kg/l
Hardener – part B : 0.930 kg/l
Mixed resin A + B : 1.050 kg/l

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

Resin – part A : 210 mPa·s
Hardener – part B : (DIN CUP 4) 12.8 s
Mixed resin A + B : 120 mPa·s

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

– (0.005%).

Pot Life

30 minutes (23 °C).



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Mechanical / Physical Properties

| TEST | METHOD | | | VALUE | | |
|-----------------------|------------|----------|-----------|-----------|-----------|-----------|
| | | | | Average | Maximum | Minimum |
| Compressive strength | ASTM D695 | ISO 604 | DIN 53454 | 78 MPa | 84 MPa | 74 MPa |
| Flexural strength | ASTM D790 | ISO 178 | DIN 53452 | 38.99 MPa | 39.65 MPa | 36.93 MPa |
| Maximum force | ASTM D638 | ISO 527 | DIN 53457 | 498 N | 503 N | 486 N |
| % elongation at break | ASTM D638 | ISO 527 | DIN 53457 | 9.15% | 10.64% | 8.93% |
| Bond strength | ASTM D4541 | ISO 4624 | DIN 4624 | 8.93 MPa | 9.97 MPa | 7.30 MPa |
| Shore D hardness | ASTM D2240 | ISO 868 | DIN 53505 | 89 | 96 | 83 |

Test results for Tardigrade ERIR 980 Two Component, Solvent Free, Epoxy Based Injection Material.



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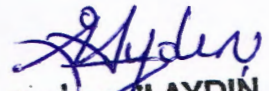
Chemical Resistance:

| Chemicals | Values |
|----------------------|--------|
| HYDRCHLORIC ACID 25% | 2 |
| HYDRCHLORIC ACID 10% | 3 |
| NITRIC ACID 25% | 2 |
| NITRIC ACID 10% | 3 |
| FORMIC ACID 25% | 2 |
| 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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