

Manufacturer: Fiberlab S.A., Brzezie 387, 32-014 Brzezie, Poland

Description: FiberFlex 30D filament designed for printing in FFF/FDM technology, available in different colors, wound on a spool, vacuum-packed in plastic, placed in a cardboard box.

Technical information:

Diameter: 1,75 mm

Diameter Tolerance: +/- 0,02 mm

Avg Roundness: + 0,01 mm

Print Temperature: 200°C - 220°C

Bed Temperature: 50°C - 60°C (Heating is not required but recommended).

Mechanical properties:

| Properties | ASTM No | Units | FiberFlex 30D |
|-------------------------------|---------|--------------------|---------------|
| Hardness | D2240 | Shore D | 30 |
| Density | - | g/cm ³ | 1,07 |
| Water Absorption | D570 | % | 0,8 |
| Mold Shrinkage | D955 | % | 0,4 |
| Tensile Stress at 10% Strain | D638 | kg/cm ² | 18 |
| Tensile Stress at Break | D638 | kg/cm ² | 220 |
| Elongation at Break | D638 | % | 900 |
| Flexural Modulus | D790 | kg/cm ² | 280 |
| Tear Strength | D1004 | kN/m | 95 |
| Izod Impact Strenth / Notched | D256 | kg*cm/cm | N.B. |
| Resilience | D2632 | % | 72 |
| Melting Point | D3418 | °C | 174 |
| HDT | D648 | °C | - |

Chemical resistance:

| Chemical | Rating | Chemical | Rating |
|----------------------|-----------|---------------------|-----------|
| Acetaldehyde | Excellent | Gasoline | Excellent |
| Acetic acid | Excellent | Glycerin | Excellent |
| Acetone | Fair | n-Hexane | Excellent |
| Acetylene | Excellent | Hydrazine | Soluble |
| Amine | Soluble | Hydrochloric acid | Poor |
| Aniline | Poor | Isopropyl alcohol | Excellent |
| ASTM oil No. 1 | Excellent | Iso-octane | Excellent |
| ASTM oil No. 3 | Excellent | m-Cresol | Soluble |
| ASTM ref. fuel A | Excellent | Methyl alcohol | Excellent |
| ASTM ref. fuel B | Excellent | Methyl ethyl ketone | Excellent |
| ASTM ref. fuel C | Poor | Methylene chloride | Soluble |
| Benzene | Fair | Naphthalene | Fair |
| Butane | Excellent | Nitric acid | Soluble |
| Butyl acetate | Fair | o-Chlorophenol | Soluble |
| Carbon monoxide | Excellent | Perchloroethylene | Soluble |
| Carbon tetrachloride | Poor | Petroleum ether | Excellent |
| Chlorobenzene | Soluble | Phenol | Soluble |
| Chloroform | Soluble | Potassium hydroxide | Good |
| Chlorosulfonic acid | Poor | Sea water | Excellent |
| Chloric acid | Good | Silicone grease | Excellent |
| Cresol | Poor | NaCl satd. water | Excellent |
| Cyclohexane | Good | Sodium hydroxide | Good |
| Dimethyl formamide | Fair | Steam (100°C) | Fair |
| D.O.P. | Excellent | Sulfuric acid 5% | Good |
| Ethyl acetate | Fair | Sulfuric acid 10% | Fair |
| Ethyl alcohol | Excellent | Sulfuric acid 50% | Soluble |
| Ethylene chloride | Soluble | THF | Fair |
| Ethylene dichloride | Soluble | Toluene | Fair |
| Ethylene glycol | Excellent | Trichloroethane | Soluble |
| Ethylene oxide | Excellent | Triethanolamine | Soluble |
| Formaldehyde | Fair | Water | Excellent |
| Formic acid | Fair | Water (100°C) | Fair |
| Freon | Excellent | Xylene | Good |

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