



→ Completely  
Controlled Process

Product Specification  
**PROGEF® Natural**  
piping systems in PP-N



→ You are looking for high quality at best price

Economical and pure system solutions for chemical sanitized water application and abrasive fluids

**+GF+**

# PROGEF® Natural – Product Specification

<b>Material</b>	Polypropylene random copolymer
Colour	Unpigmented, translucent
Density	~0.90g/cm <sup>3</sup> (ISO 1183 / ASTM D 792)
Surface tension	30–35mJ/m <sup>2</sup>
Linear expansion coefficient	0.15mm/m °K (DIN 53752)
E-module (tensile strength)	900N/mm <sup>2</sup> (ISO 527/ASTM D 790)
Thermal conductivity	0.23W/mK (DIN 52612)
Surface resistivity	> 10 <sup>16</sup> Ω (IEC 60093)
<b>Dimension</b>	d 20 (½")–d 110 (12") in accordance to EN ISO 15494
<b>Pressure rating</b>	Pipes/fittings: PN 10 (d 20–d 63), PN 6 (d 75–d 110) Valves: separate specification
<b>Temperature rating</b>	from 0 °C to 80 °C (> 60 °C for valves) (32 °F–176 °F)
<b>Production</b>	Fittings/valves: injection moulded Pipes: extruded
<b>Surface finish</b>	Inner surface Ra ≤ 0.8 μm (32 μin) Ra max for injection moulded and extruded components
<b>Marking</b>	Fittings and valves are embossed with a permanent identification during the production process to ensure full traceability. Pipes are ink marked Lot No Material Dimension Pressure Rating
<b>Testing and inspection</b> (EN ISO 15494)	Inclusions Visual inspection Surface finish Dimension tolerance Pressure testing
<b>Approvals/conformance</b>	FDA CFR 21 177.1520 USP 25 class VI (physiological non-toxic)
<b>Welding technology</b>	BCF® Plus, bead and crevice free fusion IR Plus, infra red fusion (DVS 2207-6) BF, butt fusion (DVS 2207-11)
<b>Documentation<sup>(1)</sup></b>	Certificate of Conformance with FDA, USP DIN EN 10204 2.2 DIN EN 10204 3.1b ASME BPE
<b>Packing</b>	Multiple components single bagged in specified polyethylene PE bag
<b>Labelling</b>	Brand Name Product Description Code Number Material Dimension CE-labelling
<b>Main applications</b>	Uses include cost effective, pure distribution of DI-water, critical biological fluids where chemical sanitisation is needed. Bead and crevice free jointing and minimal metallic leachout ensuring the highest product quality. High resistant to impact, abrasion and most chemicals make it ideal for slurries transportation in the semiconductor industry.

<sup>(1)</sup> on request

# PROGEF® Natural → packed for you



Any questions? Do you like us to contact you?

[www.piping.georgfischer.com](http://www.piping.georgfischer.com)

[progefnatural@piping.georgfischer.com](mailto:progefnatural@piping.georgfischer.com)

The technical data is not binding and not an expressly warranted characteristic of the goods.  
It is subject to change. Please consult our General Conditions of Supply.

#### Australia

George Fischer Pty Ltd  
Kingsgrove NSW 2008  
Phone +61(0)2/95 54 39 77  
[sales@georgfischer.com.au](mailto:sales@georgfischer.com.au)  
[www.georgfischer.com.au](http://www.georgfischer.com.au)

#### Austria

Georg Fischer  
Rohrleitungssysteme GmbH  
3130 Herzogenburg  
Phone +43(0)2782/856 43-0  
[office@georgfischer.at](mailto:office@georgfischer.at)  
[www.georgfischer.at](http://www.georgfischer.at)

#### Belgium/Luxembourg

Georg Fischer NV/SA  
1070 Bruxelles/Brüssel  
Phone +32(0)2/556 40 20  
[info.be@be.piping.georgfischer.com](mailto:info.be@be.piping.georgfischer.com)  
[www.georgfischer.be](http://www.georgfischer.be)

#### Brazil

George Fischer Ltda  
04795-100 São Paulo  
Phone +55(0)11/5687 1311

#### China

Georg Fischer Piping Systems Ltd Shanghai  
Pudong, Shanghai 201319  
Phone +86(0)21/58 13 33 33  
[info@cn.piping.georgfischer.com](mailto:info@cn.piping.georgfischer.com)  
[www.cn.piping.georgfischer.com](http://www.cn.piping.georgfischer.com)

#### Denmark/Iceland

Georg Fischer A/S  
2630 Taastrup  
Phone +45 (0)70 22 19 75  
[info@dk.piping.georgfischer.com](mailto:info@dk.piping.georgfischer.com)  
[www.georgfischer.dk](http://www.georgfischer.dk)

#### France

Georg Fischer S.A.S.  
93208 Saint-Denis Cedex 1  
Phone +33(0)1/492 21 34 1  
[info@georgfischer.fr](mailto:info@georgfischer.fr)  
[www.georgfischer.fr](http://www.georgfischer.fr)

#### Germany

Georg Fischer GmbH  
73095 Albershausen  
Phone +49(0)7161/302-0  
[info@georgfischer.de](mailto:info@georgfischer.de)  
[www.rls.georgfischer.de](http://www.rls.georgfischer.de)

Georg Fischer DEKA GmbH  
35232 Dautphetal-Mornshausen  
Phone +49(0)6468/915-0  
[info@dekapipe.de](mailto:info@dekapipe.de)  
[www.dekapipe.de](http://www.dekapipe.de)

#### Greece

Georg Fischer S.p.A.  
10434 Athens  
Phone +30(0)1/882 04 91  
[office@piping-georgfischer.gr](mailto:office@piping-georgfischer.gr)

#### India

George Fischer Piping Systems Ltd  
400 093 Mumbai  
Phone +91(0)22/2820 2362  
[branchoffice@georgfischer.net](mailto:branchoffice@georgfischer.net)

#### Italy

Georg Fischer S.p.A.  
20063 Cernusco S/N (MI)  
Phone +3902/921 861  
[office@piping.georgfischer.it](mailto:office@piping.georgfischer.it)  
[www.georgfischer.it](http://www.georgfischer.it)

#### Japan

Georg Fischer Ltd  
556-0011 Osaka,  
Phone +81(0)6/6635 2691  
[info@georgfischer.jp](mailto:info@georgfischer.jp)  
[www.georgfischer.jp](http://www.georgfischer.jp)

#### Malaysia

Georg Fischer (M) Sdn. Bhd.  
47500 Subang Jaya  
Phone +60 (0)3-8024 7879  
[conne.kong@georgfischer.com.my](mailto:conne.kong@georgfischer.com.my)

#### Netherlands

Georg Fischer N.V.  
8161 PA Epe  
Phone +31(0)578/678 222  
[info.vgnl@nl.piping.georgfischer.com](mailto:info.vgnl@nl.piping.georgfischer.com)  
[www.georgfischer.nl](http://www.georgfischer.nl)

#### Norway

Georg Fischer AS  
1351 Rud  
Phone +47(0)67 18 29 00  
[info@no.piping.georgfischer.com](mailto:info@no.piping.georgfischer.com)  
[www.georgfischer.no](http://www.georgfischer.no)

#### Poland

Georg Fischer Sp. z o.o.  
02-226 Warszawa  
Phone +48(0)22/313 10 50  
[www.georgfischer.pl](http://www.georgfischer.pl)

#### Romania

Georg Fischer  
Rohrleitungssysteme AG  
70000 Bucharest - Sector 1  
Phone +40(0)1/222 91 36  
[office@georgfischer.ro](mailto:office@georgfischer.ro)

#### Singapore

George Fischer Pte Ltd  
417 845 Singapore  
Phone +65(0)67 47 06 11  
[info@georgfischer.com.sg](mailto:info@georgfischer.com.sg)  
[www.georgfischer.com.sg](http://www.georgfischer.com.sg)

#### Spain/Portugal

Georg Fischer S.A.  
28009 Madrid  
Phone +34(0)91/781 98 90  
[info@georgfischer.es](mailto:info@georgfischer.es)  
[www.georgfischer.es](http://www.georgfischer.es)

#### Sweden/Finland

Georg Fischer AB  
12523 Älvsjö-Stockholm  
Phone +46(0)8/506 775 00  
[info@georgfischer.se](mailto:info@georgfischer.se)  
[www.georgfischer.se](http://www.georgfischer.se)

#### Switzerland

Georg Fischer Rohrleitungssysteme (Schweiz) AG  
8201 Schaffhausen  
Phone +41(0)52 631 30 26  
[info@rohrleitungssysteme.georgfischer.ch](mailto:info@rohrleitungssysteme.georgfischer.ch)  
[www.piping.georgfischer.ch](http://www.piping.georgfischer.ch)

#### United Kingdom/Ireland

George Fischer Sales Limited  
Coventry, CV2 2ST  
Phone +44(0)2476 535 535  
[info@georgfischer.co.uk](mailto:info@georgfischer.co.uk)  
[www.georgfischer.co.uk](http://www.georgfischer.co.uk)

#### USA/Canada/Latin America/Carribbean

George Fischer Inc.  
Tustin, CA 92780-7258  
Phone +1(714) 731 88 00, Toll Free 800/854 40 90  
[info@us.piping.georgfischer.com](mailto:info@us.piping.georgfischer.com)  
[www.us.piping.georgfischer.com](http://www.us.piping.georgfischer.com)

#### Export

Georg Fischer Rohrleitungssysteme (Schweiz) AG  
8201 Schaffhausen  
Phone +41(0)52 631 11 11  
[export@piping.georgfischer.com](mailto:export@piping.georgfischer.com)  
[www.piping.georgfischer.com](http://www.piping.georgfischer.com)