



Piping Systems in  
unpigmented  
Polypropylene

→ Completely  
Controlled Process

System Specification  
**PROGEF Natural**

**+GF+**

**GEORG FISCHER**  
PIPING SYSTEMS



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

**+GF+**

# PROGEF Natural – System Specification

<b>Material</b>	Polypropylene Random Copolymer
Colour	Unpigmented, translucent
Density	-0.90g/cm <sup>3</sup> (ISO 1183 / ASTM D 792)
Linear expansion coefficient	0.15mm/m °K (DIN 53752)
E-modulus	900N/mm <sup>2</sup> (ISO 527/ASTM D 790)
Thermal conductivity	0.23W/mK (EN 12664)
Surface resistivity	>10 <sup>16</sup> Ω (IEC 60093)
<b>Dimension</b>	d 20–d 110 in accordance with EN ISO 15494
<b>Pressure Rating</b>	Pipes/Fittings/Diaphragm valves: d 20–d 63 SDR11, PN10, c=2.0 d 75–d 110 SDR17.6, PN6, c=2.0
<b>Temperature Rating</b>	from 0 °C to 80 °C (160 °C for valves) (32 °F–176 °F)
<b>Production</b>	Fittings/valves: injection moulded Pipes: extruded
<b>Surface Finish</b>	Inner surface Ra m 1 µm (39 µin)
<b>Marking</b>	Fittings, pipes and valves are embossed with a permanent identification during the production process to ensure full traceability: Lot No Material Dimension Pressure Rating
<b>Testing and Inspection</b> (EN ISO 15494)	Inclusions Visual inspection Surface finish Dimension tolerance Pressure testing Full product range passed the Initial Type Test (ITT)
<b>Approvals/Conformance</b> <sup>(1)</sup>	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, infrared fusion (DVS 2207-6) Butt fusion (DVS 2207-11)
<b>Documentation</b> <sup>(2)</sup>	Certificate of Conformance with FDA, USP EN 10204 2.2 EN 10204 3.1 ASME BPE
<b>Packing</b>	Pipes: Capped & single bagged Fittings/valves: Multiple components single bagged in specified bag
<b>Labeling</b>	Brand Name Product Description Code Number Material Dimension Approvals
<b>Main Applications</b>	Uses include cost effective, pure distribution of DI-water and critical biological fluids where chemical sanitisation is needed. <b>B</b> ead and <b>C</b> revice <b>F</b> ree jointing and minimal metallic leachout ensure the highest product quality. Highly resistant to impact, abrasion and many chemicals make it ideal for slurries transportation in the semiconductor industry.

<sup>(1)</sup> For thermoplastic material only

<sup>(2)</sup> On request

# GF Piping Systems – worldwide at home

Our sales companies and representatives ensure local customer support in over 100 countries.

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