



Material Data Sheet

Clamp Body Insert & Housing Materials | Document No. WQ-DS-001 | Rev. A

Table 1 - Thermoplastic Insert Materials (Clamp Body Liner)

Material	Code	Temperature Range	Chemical Resistance	Density (g/cm ³)	Tensile Yield Strength	Series
PP - Polypropylene (grooved)	PG	-30 °C to +90 °C (-22 °F to +194 °F)	Mineral oils · Alcohols · Seawater Weak acids (conditional)	0.91	26 MPa	WQL / WQT / WQH
PP - Polypropylene (smooth)	PS	-30 °C to +90 °C (-22 °F to +194 °F)	Same as PG - smooth bore for soft/rubber tubing	0.91	26 MPa	WQL / WQT / WQH
PA - Nylon (grooved, reinforced)	NG	-40 °C to +120 °C (-40 °F to +248 °F)	Oils · Fuels · Hydraulic fluids Better chemical resistance than PP	1.13	80 MPa	WQL / WQT / WQH
PA - Nylon (smooth, reinforced)	NS	-40 °C to +120 °C (-40 °F to +248 °F)	Same as NG - smooth bore for soft/rubber tubing	1.13	80 MPa	WQL / WQT / WQH

Table 2 - Metallic Housing & Clamp Body Materials

Material	Code	Temperature Range	Chemical Resistance / Application	Density (g/cm ³)	Series
Aluminium Alloy (grooved)	LG	-50 °C to +300 °C (-58 °F to +572 °F)	Most media except strong acids Offshore · high-temp hydraulics	2.70	WQL-LG / WQT-LG / WQH-LG
Carbon Steel (grooved, zinc-plated)	GG	-80 °C to +500 °C (-112 °F to +932 °F)	Wide media compatibility High-pressure · extreme temperature	7.85	WQH-GG
Stainless Steel 316L (grooved)	BG	-80 °C to +500 °C (-112 °F to +932 °F)	Excellent corrosion resistance Seawater · acids · chemical process plant	7.98	WQH-BG

Table 3 - Chemical Resistance Quick Reference (PP / PA inserts)

Medium	PP (PG/PS)	PA-Nylon (NG/NS)	Al Alloy (LG)	Steel (GG)	SS 316L (BG)
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WeiQue Pipe Clamps

Yancheng WeiQue Pipe Fittings Co., Ltd.

Mineral hydraulic oil (HLP, HM)	+	+	+	+	+
Petroleum-based fuels (diesel, petrol)	+	+	+	+	+
Water / tap water	+	+	+	o	+
Seawater	+	+	+	-	+
Weak acids (< 10 % dilute)	o	+	-	-	+
Strong acids (conc. HCl, H2SO4)	-	-	-	-	o
Alkalis / caustic solutions	+	o	-	-	+
Alcohols (methanol, ethanol)	+	+	+	+	+
Ketones (acetone)	-	o	+	+	+
Aromatic solvents (benzene, toluene)	-	-	+	+	+

+ Compatible o Conditional / check application - Not recommended

Notes

1. All data refers to standard operating conditions (ambient humidity, non-aggressive environment) unless stated otherwise.
2. Chemical resistance ratings are indicative. Always verify suitability against the actual process medium, concentration, temperature and pressure.
3. For applications outside the rated temperature range or with aggressive media, contact WeiQue technical support at info@weiqueclamps.com.