

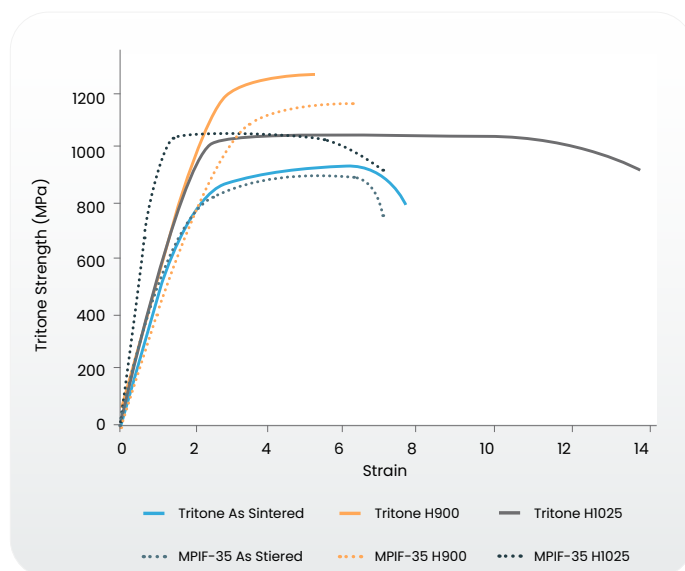
MATERIAL DATASHEET

17-4 PH STEEL

Large Container: 50-MTLP-0174 | Small Container: 50-MTLP-1174

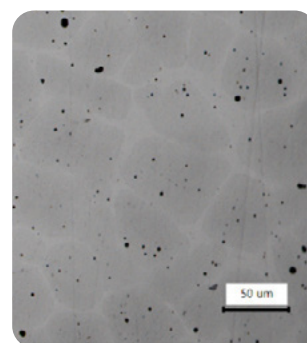
COMPOSITION (ASTM A564-04)

Composition	Amount
Carbon	0.07% max
Silicon	1.0% max
Manganese	1.0% max
Phosphorous	0.04% max
Sulfur	0.03% max
Chromium	15.0-17.5%
Nickel	3.0-5.0%
Copper	3.0-5.0%
Niobium, Tantalum	0.15-0.45%
Iron	Bal.



TYPICAL MECHANICAL PROPERTIES – AS SINTERED

Properties	Standard	Tritone AS	MIM MPIF-35
Ultimate Tensile Strength	ASTM E8	940 MPa	900 MPa
0.2% Yield Strength	ASTM E8	730 MPa	730 MPa
Elongation at Break	ASTM E8	>6%	6%
Hardness	ASTM E18	27 HRC	27 HRC
Relative Density	ASTM B962	>98%	97%



TYPICAL MECHANICAL PROPERTIES – HEAT TREATED

Properties	Standard	H900		H1025	
		Tritone	MIM MPIF-35	Tritone	MIM MPIF-35
Ultimate Tensile Strength	ASTM E8	1260 MPa	1190 MPa	1070 MPa	1070 MPa
0.2% Yield Strength	ASTM E8	1120 MPa	1090 MPa	1015 MPa	1000 MPa
Elongation at Break	ASTM E8	6%	6%	14%	7%
Hardness	ASTM E18	35 HRC	35 HRC	35 HRC	31 HRC

The mechanical properties are typical values obtained by independent laboratory from parts processed in an industrial sintering furnace.