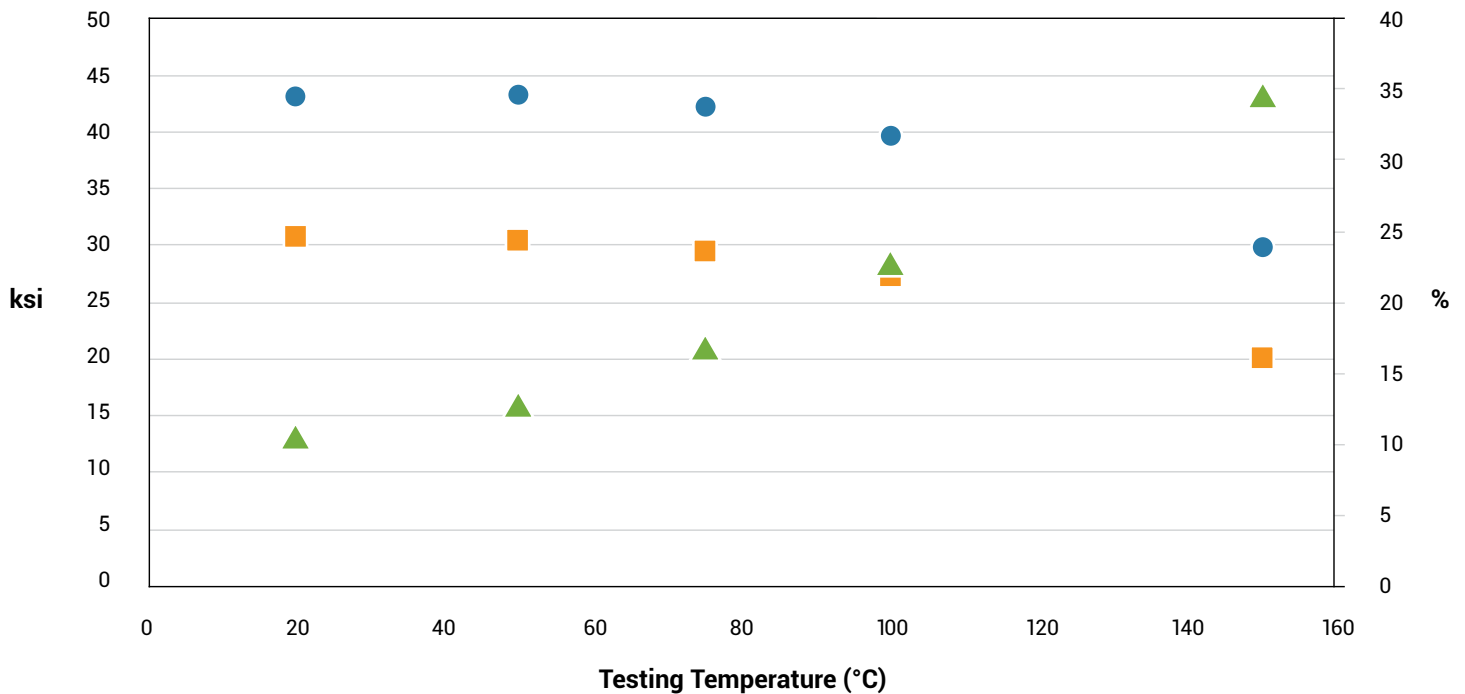




**Product Description**

TervAlloy TAX-100E is a high strength dissolvable magnesium designed for oil and gas applications. TervAlloy Tax-100E will dissolve in potassium chloride and sodium chloride solutions and can be machined to customer specification up to 5" in diameter.

**TAX-100E Mechanical Property Temperature Dependence**



● UTS (ksi)    ■ YS (ksi)  
▲ Elongation (%)

Dissolution Rates of TAX-100E (mg/cm <sup>2</sup> *hr)						
Temp (°C)	Freshwater	0.1% KCl	1% KCl	3% KCl	8% KCl	15% KCl
20	0.0	0.0	0.0	0.0	0.2	0.0
45	0.0	0.1	1.6	4.0	9.6	11.4
60	0.0	1.1	7.5	16.0	23.5	25.2
75	0.0	5.7	14.3	22.3	39.6	39.2
90	0.0	6.3	24.4	32.1	49.0	56.5

Physical	
Density	1.8 g/cc
Hardness	70 HV

Mechanical	4.6:1 Extrusion Ratio	9:1 Extrusion Ratio
Ultimate Tensile Strength <sup>1</sup> (ksi)	42	40
Yield Strength <sup>1</sup> (ksi)	29	26
Elongation <sup>1</sup> (%)	10	9
Shear Strength <sup>2</sup> (ksi)	22	

<sup>1</sup> Longitudinal values

<sup>2</sup> Longitudinal, average double shear, extrusion ratio 5:1

Temp (°C)	Yield Strength (ksi)	Ultimate Tensile Strength (ksi)	Elongation
20	30.8	43.0	10.3
50	30.5	43.2	12.8
75	29.6	42.2	16.7
100	27.3	39.6	22.4
150	20.1	29.8	34.6
300	4.5	8.3	45.4
Longitudinal, average value for extrusion ratio of 13:1			