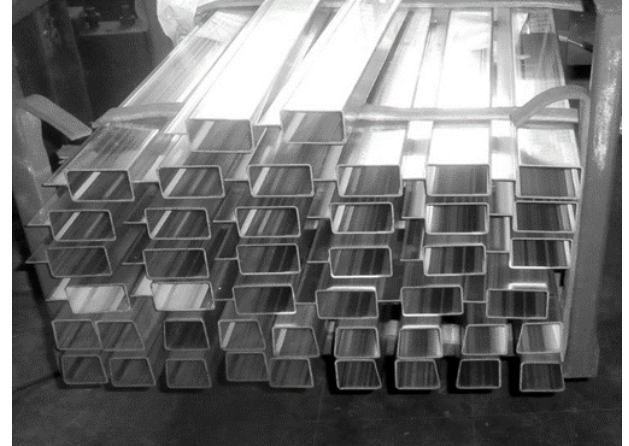


## SupremEX<sup>®</sup> 620XF

Aluminum Alloy (AA6061) reinforced with 20% sub-micron silicon carbide manufactured via a powder metallurgy to ensure a homogenous and refined microstructure leading to enhanced mechanical properties. SupremEX 620XF can be precision extruded to complex shapes on conventional extrusion equipment with standard tool steel dies. The alloy offers high strength, high stiffness and excellent corrosion resistance making it ideal for automotive, aerospace, & space structural sections Designation: 6061/SiC/20p.

### 620XF ADVANTAGES :

- Precision section extrusion using standard dies
- Reduced wall thickness offering weight saving
- High stiffness and strength
- Robust and ductile for damage resistance
- Good corrosion and fatigue performance
- Thermally stable



### PHYSICAL PROPERTIES

Density g/cm <sup>3</sup> (lbs/in <sup>3</sup> )	2.80 (0.101)	Thermal Conductivity @ 25°C W/m <sup>2</sup> K (BTU/hr .ft. °F)	150 (87)
Elastic Modulus GPa (msi)	102 (14.8)	Thermal Expansion @ 25°C ppm/°C (ppm/°F)	16 (8.9)
Specific Stiffness GPa/g/cm <sup>3</sup>	36	Solidus °C (°F)	570 (1058)
Poisson's Ratio	0.3	Specific Heat Capacity J/g/°C(BTU/lb/°F)	0.850 (0.203)

### TYPICAL MECHANICAL PROPERTIES

Product Form	Billet	Forged	Precision Extrusion	Precision Extrusion
Heat Treatment	T6 CWQ	T6 CWQ	T5	T6 CWQ
R <sub>p0.2</sub> MPa (ksi)	430 (62.4)	410 (59.4)	240 (34.8)	380 (55.1)
R <sub>m</sub> MPa (ksi)	500 (72.5)	490 (71.1)	360 (52.2)	470 (68.2)
Elongation to Failure %	4	7	8	7

Information is for comparative purposes only and information provided is based on general industry information and material properties can be different based on minimum, typical or maximum properties along with specific heat treatment conditions and product form. CWQ refers to cold water quench. Data is for information purposes only, it does not constitute a guarantee.