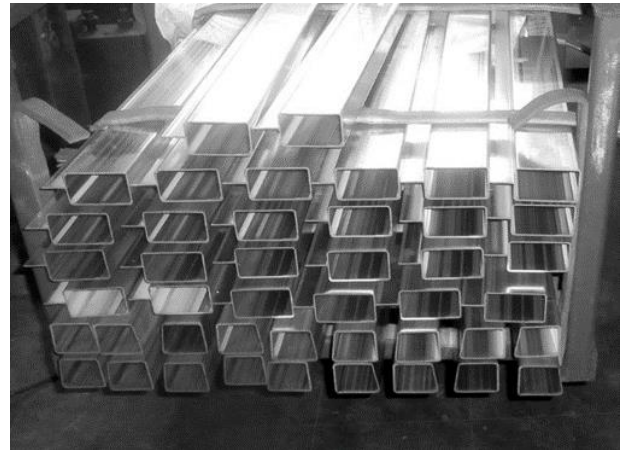


SupremEX® 620XF

A high quality aerospace grade aluminum alloy (6061B) reinforced with 20 vol.% silicon carbide particles which produces a metal matrix composite (MMC). **620XF** is manufactured via a powder metallurgy route using a mechanical alloying process to ensure a homogeneous reinforcement distribution, providing a refined grain structure enhancing mechanical properties. The MMC is heat treatable offering high strength and modulus for structural applications and is available in billet, forged and extruded forms. Designation: – 6061B/SiC/20p (0.7µm).

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 ³ (lbs/in ³)	2.80 (0.101)	Thermal Conductivity at 25°C W/m ² K (BTU/hr .ft. °F)	150 (87)
Elastic Modulus GPa (msi)	103 (14.9)	Thermal Expansion at 25°C ppm/°C (ppm/°F)	17 (9.4)
Specific Stiffness GPa/g/cm ³	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 _{p0.2} MPa (ksi)	430 (62.4)	410 (59.4)	240 (34.8)	380 (55.1)
R _m MPa (ksi)	500 (72.5)	490 (71.1)	360 (52.2)	470 (68.2)
Elongation to Failure %	4	7	8	7

Data is for information purposes only, it does not constitute a guarantee.
CWQ refers to Cold Water Quench.