

## DATA SHEET

### GENERAL PROPERTIES

- High purity version of EN AW 7075 alloy, with increased strength and toughness
- High mechanical properties
- Heat treatment to temper T73511 offers improved stress corrosion cracking resistance
- Good machinability in the heat treated condition
- Medium anodizing properties
- Corresponds to the EC Directive 2000/53/EC on end-of-life vehicles and the EC Directive 2002/95/EC (RoHS) for electrical equipment

### PHYSICAL PROPERTIES

- Modulus of Elasticity: 71.7 GPa
- Density: 2.80 kg/dm<sup>3</sup>
- Thermal conductivity (20°C): 130 - 160 W/m.K
- Thermal expansion (20-100°C):  $\pm 23.4 \mu\text{m/m.K}$
- Electrical conductivity (20°C): 19 - 25 MS/m

### CHEMICAL COMPOSITION

%	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	each	total
min	-	-	1.2	-	2.1	0.18	5.1	-	-	-
max	0.15	0.20	2.0	0.10	2.9	0.28	6.1	0.10	0.05	0.15

### SANKYO TATEYAMA EUROPE PRODUCTION POSSIBILITIES

- ROUND, SQUARE AND FLAT BARS  
CIRCUMSCRIBED CIRCLE  
EXTRUDED: 9 – 220 mm  
DRAWN: 9 – 120 mm
- SOLID SECTIONS
- ALL TEMPERS AND STANDARDS
- INDIRECT/DIRECT EXTRUSION
- HEAT TREATMENT
- DRAWING, STRAIGHTENING & CHAMFERING
- STRESS RELIEVING
- ANNEALING & AGEING
- ULTRASONIC & EDDY CURRENT INSPECTION

### APPLICATION

- Products with high mechanical strength, like machine parts, aerospace, leisure and general engineering

### MECHANICAL PROPERTIES

Temper		R <sub>m</sub> [MPa]	R <sub>p0.2</sub> [MPa]	A5	Hardness [HB]
T6511	typical	610	555	9	165
	minimum	540	480	7	
T73511	typical	500	430	11	140
	minimum	485	420	7	

Fracture toughness K<sub>IC</sub> (20°C):

- in condition T6511: LT direction 27-29 MPa.m<sup>½</sup>
- in condition T73511: LT direction 32-34 MPa.m<sup>½</sup>

Above mentioned typical values for thicknesses < 25 mm should not be used for design purposes. Minimum values can be optimized according to product requirements and heat treatment.