

TEKMAT™ **AlSi10Mg-63/20-AMS**

Aluminum Alloy Spherical Powder

- ▶ Product no.: 38373
- ▶ Data Sheet no.: v38373-20-1
- ▶ Composition: Al-10Si-0.3Mg
- ▶ Size Fraction: - 63 + 20 μm
- ▶ Compliant to AMS7018, Class A

Technical Specifications

▶ Particle Size Distribution

- Sieve Analysis (ASTM B214) - μm , vol%

Size (μm)	Min	Max
+90	---	0.0
+74	---	1.0
+63	---	5.0

- Laser scattering (ASTM B822) - μm , vol%

Size	Min	Max
D10	20	---
D50	FIO	
D90	FIO	

▶ Density & Flow

Tap Density:	$\geq 1.5 \text{ g/cm}^3$
Apparent Density:	$\geq 1.3 \text{ g/cm}^3$
Flow Test (Carney) :	$\leq 15 \text{ sec./50g}$

▶ Moisture Content

Moisture Content (Loss on Drying): $\leq 0.05\%$

▶ Chemical Composition¹

Silicon (Si):	9.00 – 11.00%
Magnesium (Mg):	0.25 – 0.45%
Iron (Fe):	$\leq 0.40\%$
Titanium (Ti):	$\leq 0.15\%$
Manganese (Mn):	$\leq 0.10\%$
Zinc (Zn):	$\leq 0.10\%$
Copper (Cu):	$\leq 0.03\%$
Nickel (Ni):	$\leq 0.05\%$
Tin (Sn):	$\leq 0.05\%$
Lead (Pb):	$\leq 0.05\%$
Oxygen (O):	$\leq 0.10\%$
Beryllium (Be):	$\leq 0.002\%$
Carbon (C):	$\leq 0.05\%$
Hydrogen (H):	$\leq 0.005\%$
Nitrogen (N):	$\leq 0.01\%$
Other, each:	$\leq 0.05\%$
Other, total:	$\leq 0.15\%$
Aluminum (Al):	Balance

¹Chemical composition meets specifications of ASTM F3318, 3A60.50, 3A60.51 and AMS7018

