



Pure Magnesium Powders for Military Applications

MIL-DTL-382E w/AMENDMENT 1, 15 September 2017

Luxfer MEL Technologies produces pure magnesium powders for a variety of applications to support the U.S. Army, Navy, Air Force, and allied governments. Pure magnesium powders are manufactured to the highest standards using state-of-the-art equipment and highly engineered processes. Our ability to control particle shape and size and to reproduce particle size distributions and particle morphology from drum-to-drum and lot-to-lot sets us apart in the metal powders industry. Short lead-times allow us to react quickly to our customers' changing demands.

Applications

- Infrared countermeasure flares
- Illumination flares
- Signal flares
- Training simulators

Specifications

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Form

- Type I – Flaked and/or chipped
- Type II – Oblong chip with rounded edges
- Type III – Granular or spheroidal (atomized)



Standard granulations

Granulation	Specification (U.S. standard sieves)
Granulation 6	+70 mesh: 0% +80 mesh: 0-10% +120 mesh: 80-100% -120 mesh: 0-15%
Granulation 7	+100 mesh: 0-2% -100 mesh: 98-100%
Granulation 11	+25 mesh: 0% +80 mesh: 0-30% +120 mesh: 30-50% +200 mesh: 25-45% -200 mesh: 0-25%
Granulation 12	+100 mesh: 0% +120 mesh: 0-3% +200 mesh: 15-40% -200 mesh: 57-85%
Granulation 15	+50 mesh: 0% +100 mesh: 0-15% +200 mesh: Balance -200 mesh: 0-15%
Granulation 16	+100 mesh: 0% +200 mesh: 0-40% +325 mesh: Balance -325 mesh: 0-50%
Granulation 17	+30 mesh: 0% +50 mesh: 0-15% +100 mesh: Balance -100 mesh: 0-15%
Granulation 18	+16 mesh: 0-1% +30 mesh: 0-10% +40 mesh: 20-60% +50 mesh: 20-60% +70 mesh: 0-10% -70 mesh: 0-1%

*Other granulations available upon request.

Chemical composition

Requirements	Type I powder	Type II powder	Type III powder
Magnesium, % min.	96 **	96 **	98
Volatile material at 105 ° C, % max.	0.1	0.1	0.1
Oil and grease, % max.	0.02	0.02	0.02
Total Fe, % max.	0.22	0.22	0.22
Carbides, % max.	0.004	0.004	0.004

**Note: Granulation 18 shall be 98% min.

Discover more at
www.luxfermeltechnologies.com

† The information contained within is meant as a guideline only

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Luxfer MEL Technologies

955 Saxonburg Boulevard, Saxonburg, PA 16056, United States

T +1-855-589-3371

E lmt.customerservicepowders@luxfer.com