LUMA METALL®
Fine wire products

Luma Molybdenum Wire

Characteristics

- High strength to weight ratio
- High melting point
- High hot strength
- Low thermal expansion
- Low heat capacity
- High thermal conductivity

Example of applications

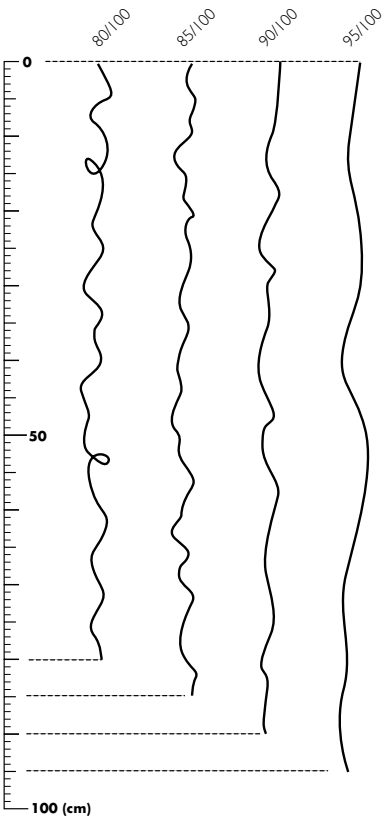
- Antennas
- Electronic tubes
- Spark erosion
- Connectors
- Lighting
- Mesh

Properties of bare Molybdenum wire	
Purity	99.9% Mo
Melting point	2620 °C
Density	10.14 g/cm^3
Specific electrical resistance at 20 °C	0.052 Ohm x mm^2/m
Modulus of elasticity at 20 °C	320 kN/mm^2

Wire qualities	
710	Luma standard quality containing minimum 99.9 % Mo
720	A special quality containing minimum 99.9 % Mo, which has a good workability even in the recrystallized state.

Surface finishes		Diameter range (microns)	Diameter range (mils)	Elongation (%)
21	Black drawn wire	25 - 500	0.98 - 19.6	< 2
22	Black drawn wire, straightened	25 - 500	0.98 - 19.6	< 2
31	"21" wire, electrolytically cleaned	25 - 500	0.98 - 19.6	< 2
32	"21" wire, straightened and electrolytically cleaned	25 - 500	0.98 - 19.6	< 5
41	"21" wire, electrolytically etched to the final dimension	10 - 25	0.39 - 0.98	< 2
42	"21" wire, straightened and electrolytically etched to the final dimension	10 - 25	0.39 - 0.98	< 5
52	"31" wire, annealed in protective gas to a tensile strength of minimum 48 g/mg/200 mm	25 - 200	0.98 - 7.87	10 - 20
53	"31" wire, annealed in protective gas to a tensile strength of minimum 40 g/mg/200 mm	25 - 200	0.98 - 7.87	15 - 25
54	"53" wire with a highly polished surface	25 - 200	0.98 - 7.87	15 - 25

Straightness



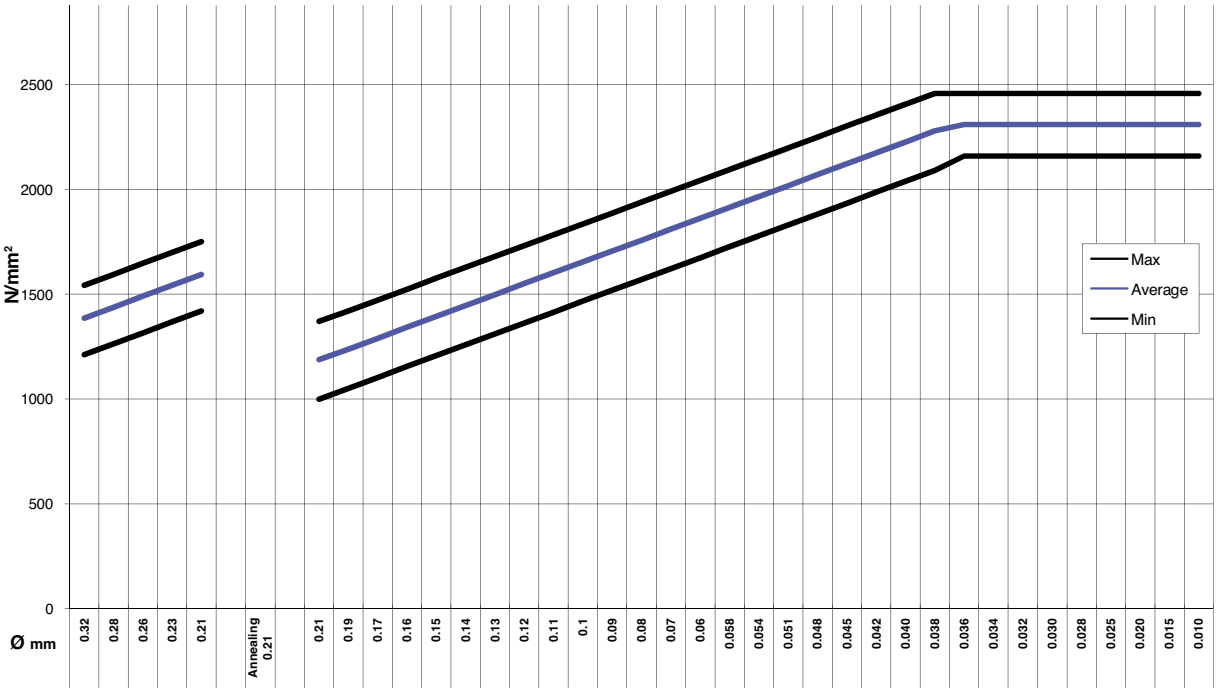
Ovality (out of roundness)

ø Microns	Standard	Available on request
< 15	Max 6%	Max 3%
≥ 15	Max 5%	Max 2%

Dimensional tolerances

Qualities 710/21, 710/22, 710/31, 710/32, 720/21, 720/31			
Diameter tolerance		**Weight tolerance**	
Standard	On request	Standard	On request
+/-1%	+/-0.25%	+/-2%	+/-0.5%
Quality 710/52			
Diameter tolerance		**Weight tolerance**	
Standard	On request	Standard	On request
+/-2.5%	+/-0.5%	+/-5%	+/-1%
Quality 710/53, 710/54, 710/41, 710/42			
Diameter tolerance		**Weight tolerance**	
Standard	On request	Standard	On request
+/-1.5%	+/-0.5%	+/-3%	+/-1%

Standard tensile strength of Molybdenum



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