

Ref MA3

## METALLISATION – MOLYBDENUM

### General properties :

- This heat-sprayed material sticks by itself to steels which means it can be used in thin layers.
- It is a very good antagonist for steel and ferrous alloys, which is one of its most common uses.
- It also slides well on copper and copper alloys.  
It can dry rub without seizing.

### Applications :

- Various axle surfaces turning on bronze.
- Wheel running gear units
- V-belt pulleys in light alloys.
- Hard coating, resistant to corrosion and abrasion.
- Sliding blocks
- Gear-box shift fork  
Segments.

## TECHNICAL SHEET Ref MA3

PROPERTIES	
Name	Molybdenum
Symbol	Mo
Composition %	Mo > 99.5 O <sub>2</sub> < 0.15
Bulk density	9
Average porosity %	5
Hardness	450 HB
Coefficient of expansion	5.5 x 10 <sup>-6</sup>
Maximum working temperature °C	450 (mechanical)
Melting temperature °C	2622
Electrical resistivity 10 <sup>-6</sup> W cm	
Thermal conductivity Kcal dry -1° cm <sup>2</sup> cm	

MACHINING BY TOOL	BLANK	FINISH
Type of tool	BN	
Depth of travel mm	0.1	
Travel mm / lathe	0.05	
Lubricant	None	
Cutting speed m/mn	160	
Ra µm	1.6	

ABRASIVE MACHINING	BLANK	FINISH
Abrasive	SIC39C	diamond
Grain	8	80-200
Grade	K	50-100
Binding agent	Vitrified	Metallic
Depth of travel µm	5	5
Travel m/mn	1.2	0.5
Lubricant	Oil	
Speed of part m/mn	20	20
Wheel speed m/s	30	40
Ra µm	0.8	0.4

## TREATMENTS AND IMPREGNATIONS

The information provided may be subject to variation depending on individual supplies and applications. Therefore, any information detailed in this technical sheet is provided in good faith and for guidance only. We cannot be held liable.