

MDS.30.00

# MU

## SELF LUBRICATED SLIDING BEARINGS



Sliding Layer	Intermediate Layer	Connecting Layer	Supporting Shell
Proprietary PTFE compound. Lead Free, complying with the European Parliament's "ELV" directive 2000/53/EC Thickness 50 ÷ 160µm. Colour black/gray.	CuSn11 Sintered Thickness 190 ÷ 340µm. Average Peak.	Cu < 1µm	C 0.17 % Max Mn 1.40 % Max P 0.04 % Max S 0.04 % Max

Characteristics	
Working surface acceptable specific static pressure	Max 250 N/mm <sup>2</sup>
Working surface acceptable specific dynamic pressure	Max 180 N/mm <sup>2</sup>
Maximum sliding speed (dry)	2,50 m/s (500 fpm)
Maximum sliding speed (oil)	10,00 m/s (2000 fpm)
Working temperature	From -200°C to +280° C
Friction factor Not affected by "stick - slip" effect	From 0.02 to 0.20
Surface resistivity ( PTFE modified only )	> 10 <sup>14</sup> Ohm
Thermal conductivity ( PTFE modified only )	0,4 W/(m ·K)

Performance
MU bushing service life depend mainly from the load factor $P \times V$ (N/mm <sup>2</sup> · m/s). Practical cases have shown that a working load factor of 2,50 to 3,60 (N/mm <sup>2</sup> · m/s) is admissible for short periods. Long service life (dry) are suited with load factors ranging from 0,20 to 1,80 for continuous movements and 0,10 to 0,90 (N/mm <sup>2</sup> · m/s) for alternate movements. For the bushes the internal semi-surface, which is given by the result of the internal diameter multiplied by the length $D_i \times L$ , must be considered. We recommended to make previous test for new application / project.

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Friction		
Sliding Speed V (m/s)	Specific Load P (N/mm <sup>2</sup> )	Friction Factor
up to 0,001	180	0,02
from 0,001 to 0,005	from 179 to 62	from 0,04 to 0,07
from 0,005 to 0,05	from 61 to 11	from 0,07 to 0,10
from 0,05 to 0,50	from 10 to 1	from 0,10 to 0,15
from 0,50 to 2,50	< 1	from 0,15 to 0,20

Shaft
For proper bushing performance we suggest having a shaft roughness of 0.40µm Max.
Items
<p>The MU can be supplied as many technical items, between them we indicate the followings:</p> <ul style="list-style-type: none"> <li>• Trust Washers</li> <li>• Plain Bearings according to ISO 3547 or according to customer's design drawing</li> <li>• Flanged Bearings</li> <li>• Plain Strips</li> </ul>