

COPPER ALLOY**Bronze_Sintered****DSM 2.4.3****Oilite Bronze:**

Self - lubricating oil impregnated sintered bronze.

Definition:

Powder metallurgy is used to create tiny pores which are vacuum impregnated with oil (SAE 30) to enhance bearing behaviour.

MB01-1: Non- standard available on request.

MB01-2: All products unless otherwise stated.

MB01-3: Applicable to DIN standard.

Features:

Oilite® bushes are made to G7/s7 limits of tolerance. When fitted into a rigid H7 housing, using an m5 fitting pin, will give an H7 bore, which when run on an f7 shaft will give good performance.

Machining requires sharp tungsten carbide cutters to preserve the open pore structure.

Note: To prevent possible seizures with Stainless Steel or hard-chromium plated shafts, an addition of molybdenum disulphide to the impregnation oil must be specified.

Shafts should ideally be hardened to approximately HRC 60 and ground to a surface roughness of Ra=0.25µm.

ASM (DEK) Application:

- Bearings:-
 - Plain
 - Flanged
- Thrust washers
- Wear Plate

Note: The material choice must be added to the drawing. Eg:-

DSM 2.4.3_2

Alternatives:

Alternative materials are allowed only with the express written permission of ASMPT. Please email details of your request to engineering_enquiries@asmpt.com

Issue	01	02	03	04	05	06	07	08	09
DCR		7135	44721						



COPPER ALLOY**Bronze_Sintered****DSM 2.4.3**

MECH. PROPERTIES of BRONZE grades			
MATERIAL	OILITE		
	1	2	3
	MB01-1	MB01-2	MB01-3
Oil Content Min. %	24	20	18
Static Load Max. MPa	35	50	65
Dynamic Load Max. MPa	10	14	18
Velocity m/sec	6.0	5.0	5.5
Density Kg/m ³	6000	6600	7000

CHEMICAL COMPOSITION of BRONZE grades			
MATERIAL	OILITE		
	MB01-1	MB01-2	MB01-3
Copper (Cu) %	Balance	Balance	Balance
Tin (Sn) %	9 - 11,0	9 - 11,0	9 - 11,0
Iron (Fe) %	1,0 Max	1,0 Max	1,0 Max
Carbon (C) %	<0.3	<0.3	<0.3
Others max %	2.0	2.0	2.0

CURRENT INTERNATIONAL SPECIFICATION COMPARISON			
	MB01-1	MB01-2	MB01-3
BRITISH: BS 5600	P4011Z	P4012Z	P4013Z
GERMAN: DIN 30 910 pt.3		Sint A50	Sint B50
AMERICAN: SAE	840	841	842
EUROPEAN: ISO 5755 pt. 1	P4011Z	P4012Z	P4013Z

Issue	01	02	03	04	05	06	07	08	09
DCR		7135	44721						