


REVISIONS						
REV	DESCRIPTION	EAP#	DATE	CREATED BY	CHECKED	AUTHORISED
REL	First Released					
A	Drawing creation	28103	02/27/2014			

NOTES: (vehicle using this P/N, Manufacturer, Supplier contact...)

DESCRIPTION- SPECIFICATION:

- A) Standard range cylindrical
B) Composite material
- More detail, see attach datasheet.

SOURCE OF SUPPLY:



SPECIFIED



SUGGESTED

NAME: ENGLISH GAR-MAX
OTHER

ADDRESS:

CAGE CODE:
VENDOR P/N: 455345GMGGB
NSN#:

**DETAILED SPEC OR VENDOR'S
DOCUMENT(S) ATTACHED:**



Y N



DIMENSIONS: LENGTH 0.00 INCH / MM WIDTH 1.77 INCH / 45 MM HEIGHT 2.09 INCH / ø53 MM WEIGHT 0.11 IBS / 0.0518 KG



SOURCE



SPECIFICATION

CONTROL DRAWING



			TLD FACTORY	SHA
DESCRIPTION	ENGLISH OTHER	BUSHING 455345GM GGB		
CAGE CODE	DWG N°	4200418	REVISION	NUMBER OF PAGES
SLC46			A	3 pages

Introduction

GAR-MAX® is a dual-layer, composite bearing material that combines the mechanical strength of a filament-wound, fiberglass-impregnated epoxy backing and the excellent tribological properties of an anti-friction sliding layer. The high load-carrying capacity is the result of a special filament winding process. Reinforced PTFE filaments and high-

strength polymer fibres, embedded in epoxy resin compounded with graphite, form a strong, wear-resistant bearing surface. To meet the increased demand for GAR-MAX® bearings, we have expanded the production capacity of our U.S. plant. Please note our **new part numbers** and **modified clearances**.

Structure of GAR-MAX®

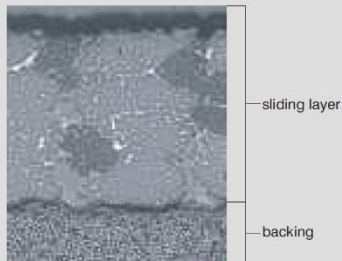
Structure

Composite material Sliding Layer

Continuous wound PTFE and high-strength fibres encapsulated in an internally lubricated, high-temperature filled epoxy resin.

Backing

Continuous wound fiberglass encapsulated in a high temperature epoxy resin.



Features

- High load capacity
- Excellent shock resistance
- Excellent contamination resistance
- Excellent misalignment tolerance
- Very good friction and wear properties
- Good chemical resistance

Possible Applications

Industrial:

Steering linkages, hydraulic cylinder pivots, king pin bearings, boom lifts, scissor lifts, cranes, hoists, lift gates, backhoes, trenchers, skid steer loaders, front-end loaders, etc.

Availability

Ex stock:

Cylindrical standard bushes

To order:

Non-standard lengths (short-term), non-standard wall thickness (on request)

Bearing properties	Units	Value
Maximum load \bar{p}	- static - dynamic	210 140
Maximum sliding speed U	- dry	m/s 0,13
Maximum $\bar{p}U$ factor	- dry	MPa x m/s 1,05
Maximum temperature T_{max}		°C + 160
Minimum temperature T_{min}		°C - 195
Coefficient of friction f	- dry	- 0,05 - 0,30
Shaft surface finish Ra*		µm 0,15 - 0,40
Shaft hardness*	- normal - for service life >2000 hours	HB >350 >480

*Alternative shaft hardnesses and shaft surface finish is possible, depending on the application. Please contact your local GGB representative.

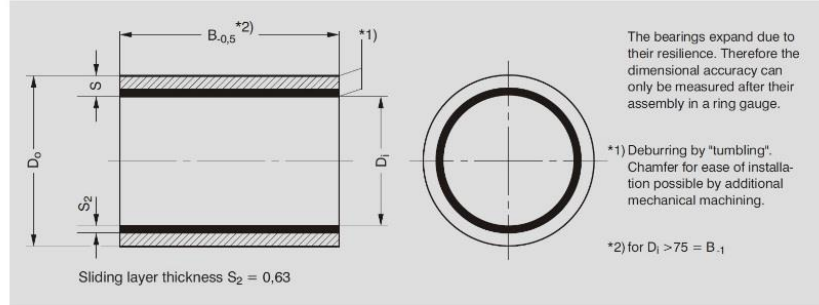


Cylindrical bushes

Usage

dry	very good
oil lubricated	fair
grease lubricated	fair
water lubricated	fair
process fluid lubricated	poor

Standard range cylindrical GAR-MAX® bushes



Dimensions [mm]

Order No.	Technical data						Installation tolerance	
	Dimensions					Weight g	Housing Shaft	Clearance min./max.
GGB	Inner Ø D _i	Outer Ø D _o	Width B	Thickness S				
162015GM	16	20	15	2,0	3,8	0,020	H7/h8	0,020
162020GM	16	20	20	2,0	4,8			0,198
202415GM	20	24	15	2,0	4,1			0,020
202420GM	20	24	20	2,0	5,4			0,204
202425GM	20	24	25	2,0	6,8			
222620GM	22	26	20	2,0	6,5	0,020	H7/h8	
222625GM	22	26	25	2,0	8,0			
253020GM	25	30	20	2,5	8,1			
253025GM	25	30	25	2,5	10,6			
253030GM	25	30	30	2,5	12,1			
283422GM	28	34	22	3,0	12,0	0,020	H7/h8	0,208
303620GM	30	36	20	3,0	11,7			
303630GM	30	36	30	3,0	17,4			
303636GM	30	36	36	3,0	21,0			
303640GM	30	36	40	3,0	23,3			
303650GM	30	36	50	3,0	29,1	0,020	H7/h8	
354130GM	35	41	30	3,0	20,1			
354135GM	35	41	35	3,0	23,5			
354140GM	35	41	40	3,0	26,8			
354150GM	35	41	50	3,0	33,5			
404820GM	40	48	20	4,0	20,7	0,025	H7/h8	0,214
404830GM	40	48	30	4,0	31,0			
404840GM	40	48	40	4,0	41,4			
404850GM	40	48	50	4,0	51,7			
455330GM	45	53	30	4,0	34,5			
455340GM	45	53	40	4,0	46,1	0,025	H7/h8	
455345GM	45	53	45	4,0	51,8			
455350GM	45	53	50	4,0	57,5			
455360GM	45	53	60	4,0	69,1			
505830GM	50	58	30	4,0	38,1			
505840GM	50	58	40	4,0	50,8	0,025	H7/h8	
505850GM	50	58	50	4,0	63,4			
505860GM	50	58	60	4,0	76,1			
556330GM	55	63	30	4,0	41,6			
556340GM	55	63	40	4,0	55,5			
556360GM	55	63	60	4,0	83,2	0,025	H7/h8	
607030GM	60	70	30	5,0	57,3			
607040GM	60	70	40	5,0	76,4			
607045GM	60	70	45	5,0	85,9			
607050GM	60	70	50	5,0	95,4			
607060GM	60	70	60	5,0	114,6	0,025	H7/h8	
657550GM	65	75	50	5,0	102,8			

Production of special dimensions (e.g. other wall thicknesses, running layer thicknesses) are possible.

Order No.	Technical data						Installation tolerance	
	Dimensions					Weight g	Housing Shaft	Clearance min./max.
GGB	Inner Ø D _i	Outer Ø D _o	Width B	Thickness S				
708040GM	70	80	40	5,0	86,7	0,030	H7/h8	
708050GM	70	80	50	5,0	110,2			
708055GM	70	80	55	5,0	121,3			
708060GM	70	80	60	5,0	130,0			
708070GM	70	80	70	5,0	154,2			
708080GM	70	80	80	5,0	173,4	0,040	H7/h8	
758550GM	75	85	50	5,0	117,5			
758560GM	75	85	60	5,0	140,9			
758570GM	75	85	70	5,0	164,5			
758580GM	75	85	80	5,0	187,9			
809050GM	80	90	50	5,0	124,8	0,040	H7/h8	
809060GM	80	90	60	5,0	149,8			
809070GM	80	90	70	5,0	174,7			
809080GM	80	90	80	5,0	199,7			
859560GM	85	95	60	5,0	158,6			
859580GM	85	95	80	5,0	211,5	0,040	H7/h8	
9010570GM	90	105	70	7,5	300,6			
10011580GM	100	115	80	7,5	378,8	0,040	H7/h8	
100115100GM	100	115	100	7,5	473,5			
100115120GM	100	115	120	7,5	568,2			
110125100GM	110	125	100	7,5	517,5	0,040	H7/h8	
110125120GM	110	125	120	7,5	620,9			
120135100GM	120	135	100	7,5	561,6	0,040	H7/h8	
120135120GM	120	135	120	7,5	673,9			

Dimensions in assembled state

Inner Ø D _i		Inner Ø D _i	
16 - 25	+0,190 +0,110	> 70 - 85	+0,265 +0,165
> 25 - 40	+0,195 +0,115	> 85 - 100	+0,275 +0,175
> 40 - 50	+0,230 +0,130	> 100 - 110	+0,300 +0,175
> 50 - 65	+0,240 +0,140	> 110 - 120	+0,305 +0,180
> 65 - 70	+0,245 +0,145		

Outer Ø D _o		Outer Ø D _o	
> 16 - 25	+0,090 +0,040	> 70 - 85	+0,125 +0,075
> 25 - 40	+0,095 +0,045	> 85 - 100	+0,135 +0,085
> 40 - 50	+0,105 +0,055	> 100 - 110	+0,140 +0,090
> 50 - 70	+0,115 +0,065	> 110 - 120	+0,170 +0,100