

# 565

## PRECISION BEARING

*Glass-Filled Thermoplastic  
Rod and Piston*

### DESIGN

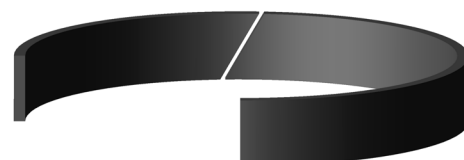
The Hallite 565 glass-filled thermoplastic bearing is designed to provide an extremely effective, hard wearing, and easy-to-use bearing solution for reciprocating, oscillating, and slow rotary movement applications.

The Hallite 565 is designed and manufactured for use in medium to heavy duty hydraulic applications thereby effectively preventing metal-to-metal contact between the piston and the bore or the rod and the gland.

Innovative tooling and process control ensures the manufacture and production of high quality, dimensionally precise bearings in an efficient way, targeted and perfectly suited for competitive markets and high volume OEM production.

The 565 precision bearing is a rectangular section bearing, typically with a split to facilitate assembly. It can be supplied in either a piston orientation with a slight overlap to ensure a 'snap-on' fit onto the piston head, or a rod orientation with a larger gap to ensure a 'spring-out' fit into the rod gland.

Tooling also allows the bearing to be supplied with different split orientations, angled or butt (90 degrees) to customer and application requirements.



### FEATURES

- Moulded precision bearings
- Optimised hydraulic performance
- Medium & heavy duty applications
- Suited for high volume production

### MATERIALS

As standard, this product comes in the following material. Contact your local Hallite technical team if you would like to find out if this profile can be made in a custom material to suit your application. For further material details, please refer to the Hallite Material Table.

MATERIAL OPTIONS	Number	Type	Colour
Standard	9260011	PA-GF	Black
Option	9230032	POM-GF	Black



## TECHNICAL DETAILS

OPERATING CONDITIONS	METRIC	INCH
Maximum Speed	5.0 m/sec	16.0 ft/sec
Temperature Range	-40 +120°C	-40 +250°F

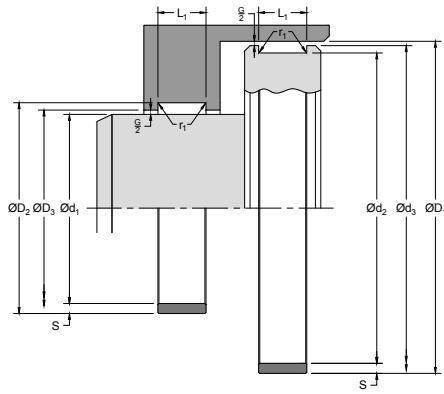
### NOTE

Data given are maximum values and can apply depending on specific application. Maximum ratings of temperature, pressure, or operating speeds are dependent on fluid medium, surface, gap value, and other variables such as dynamic or static service. Maximum values are not intended for use together at the same time, e.g. max temperature and max pressure. Please contact your Hallite technical representative for application support.

SURFACE ROUGHNESS	$\mu\text{mRa}$	$\mu\text{mRz}$	$\mu\text{mRt}$	$\mu\text{inRa}$	$\mu\text{inRz}$	$\mu\text{inRt}$
Dynamic Face - Rod $\varnothing d_1$	0.40	1.6 max	4 max	16	63 max	157 max
Static Face - Rod $\varnothing D_2, L_1$	3.2 max	10 max	16 max	125 max	394 max	630 max
Dynamic Face - Piston $\varnothing D_1$	0.40	1.6 max	4 max	16	63 max	157 max
Static Face - Piston $\varnothing d_2, L_1$	3.2 max	10 max	16 max	125 max	394 max	630 max

HOUSING DETAILS & TOLERANCES				
Rod	$\varnothing d_1$ , mm	f9	$\varnothing d_1$ , in	f9
	$\varnothing D_2 = \varnothing d_1 + 2S$ mm	H9	$\varnothing D_2 = \varnothing d_1 + 2S$ in	+0.004 -0
	$\varnothing D_3 = \varnothing d_1 + G$ mm	-	$\varnothing D_3 = \varnothing d_1 + G$ in	-
Piston	$\varnothing D_1$ , mm	H9	$\varnothing D_1$ , in	H11
	$\varnothing d_2 = \varnothing D_1 - 2S$ mm	h9	$\varnothing d_2 = \varnothing D_1 - 2S$ in	+0.000 -0.0004
	$\varnothing d_3 = \varnothing D_1 - G$ mm	-	$\varnothing d_3 = \varnothing D_1 - G$ in	-

RADIAL CLEARANCE RECOMMENDATIONS	
NOMINAL CROSS SECTIONS	G max
S = 3.00 mm	2.00 mm
S = 2.50 mm	1.50 mm
S = 0.125 in (1/8 in)	0.080 in
S = 0.093 in (3/32 in)	0.080 in



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### PART NUMBER RANGE

METRIC				
ØD1	Ød2	L1	S	Part No. No.
50	45	7	2.5	4946700
60	55	7	2.5	4946800
70	65	7	2.5	4946600
75	70	5.6	2.5	4946900
75	70	9.7	2.5	4947000
80	75	9.7	2.5	4947100
90	85	9.7	2.5	4947200
100	95	15	2.5	4947300
110	105	15	2.5	4947400
120	115	15	2.5	4947500
130	125	15	2.5	4947600
140	135	15	2.5	4947700
160	155	15	2.5	4947800