

# 657

## ADDITIONAL PRODUCT

*Polyurethane Flange Seal for SAE J518 Type Flanges*

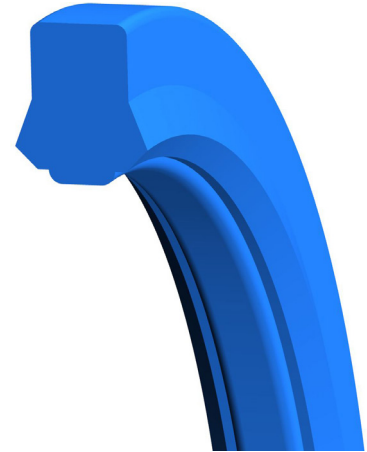
### DESIGN

The Hallite 657 flange seal is designed to fit SAE J518 flanges.

The Hallite 657 overcomes high pressure and shocking loading which commonly cause pumping problems when using O-rings in flange sealing applications preventing reliable sealing.

The Hallite 657 is moulded in Hythane® 181, Hallite's high-performance polyurethane, for easy installation and excellent low temperature performance. The Hallite 657 is also offered in an industrial standard grade of polyurethane.

Also listed are two non-SAE seal sizes for metric flanges.



### FEATURES

- SAE flange sizes
- Replaces an O-ring
- Manufactured in high specification material
- Also offered in industrial grade material option

### MATERIALS

This product comes in a number of material options to extend operating conditions. Contact your local Hallite technical team to decide which is best for your application. Use the part designator in the table below as the last digit of the part number to specify material choice when ordering. For further material details, please refer to the Hallite Material Table.

MATERIAL OPTIONS	Name	Type	Colour	Part Designator
Standard	Hythane® 181	TPU-EU	Blue	0
Optional	PU 021	TPU-AU	Dark Blue	1

## TECHNICAL DETAILS

OPERATING CONDITIONS	METRIC	INCH
Maximum Speed	Static	Static
Temperature Range - Hythane® 181	-45°C +110°C	-50°F +230°F
Temperature Range - PU 021	-30°C +100°C	-22°F +212°F
Maximum Pressure	600 bar	8500 psi

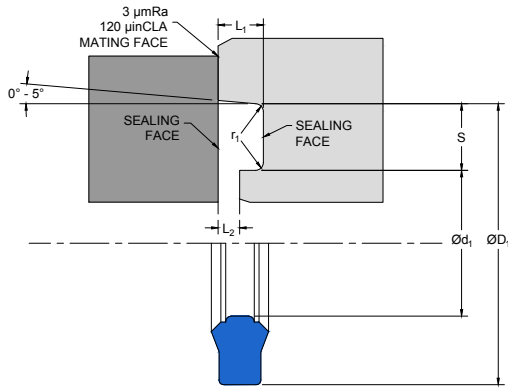
**NOTE**

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	$\mu\text{mRa}$	$\mu\text{mRz}$	$\mu\text{mRt}$	$\mu\text{inRa}$	$\mu\text{inRz}$	$\mu\text{inRt}$
Sealing Faces	0.8 max	3.2 max	6.3 max	32 max	64 max	128 max
Mating Face	3 max	10 - 15	20 - 30	120 max	400 - 600	800 - 1200

RADII	Metric	Inch
Max Fillet Rad $r_1$	0.80	0.030

TOLERANCES	$\varnothing D_1$	S	$L_1$	$L_2$
mm	$\pm 0.10$	$\pm 0.25$	$\pm 0.05$	+0 -0.25
in	+0.005 -0	$\pm 0.015$	+0.005 -0	+0 -0.010



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### PART NUMBER RANGE

INCH							
NOMINAL (SAE J518)	ØD <sub>1</sub>	TOL	Ød <sub>1</sub>	S ±0.010	L <sub>1</sub> +0.005 -0	L <sub>2</sub> +0-0.010	PART No.
½	1.000	+0.005 0.000	0.670	0.165	0.110	0.010	4490900
¾	1.250	+0.005 0.000	0.920	0.165	0.110	0.010	4491000
1	1.560	+0.005 0.000	1.230	0.165	0.110	0.010	4491100
1¼	1.750	+0.005 0.000	1.420	0.165	0.110	0.010	4422000
1½	2.125	+0.010 0.000	1.785	0.165	0.110	0.010	4422100
2	2.500	+0.010 0.000	2.160	0.165	0.110	0.010	4422200
METRIC							
ØD <sub>1</sub> ±0.10	TOL	Ød <sub>1</sub> ±0.25	S ±0.05	L <sub>1</sub> +0-0.25	L <sub>2</sub> No.	PART No.	
33.50	26.30	3.60	2.20	0.25	4432800	4490900	
45.00	36.20	4.40	3.30	0.25	4491200	4491000	