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Specification for

**Elastomeric grommets
(polychloroprene) for
aerospace use**

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Contents

	Page
Foreword	ii
1 Scope	1
2 References	1
3 Material	1
4 Dimensions	1
5 Finish	1
6 Identification and packaging	1
7 Inspection and life control in stores	1
8 Example of call up	3
Figure 1 — Grommet	2
Table 1 — Dimensions and part numbers	2
Table 2 — Tolerances	3

Foreword

This British Standard has been prepared at the request of the Aerospace Industry to provide a range of grommets manufactured from polychloroprene (neoprene) rubber complying with BS 2752, grade C60. The dimensional requirements of this standard are identical with those of BS 1767:1951¹⁾

For grommets manufactured from other elastomeric materials refer also to BS SP 93 "*Elastomeric grommets acrylonitrile-butadiene*" and to AS 44404, AS 44405 and AS 44406 (Elastomeric grommets — various) (SBAC series).

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Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, pages 1 to 3 and a back cover.

This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.

¹⁾ The range of BS 1767 is slightly greater than that of this standard.

1 Scope

This British Standard specifies the requirements relating to material, dimensions, finish, packaging, identification and storage inspection of elastomeric grommets with good resistance to ozone and some resistance to splash attack by aircraft oils and fuels for operating temperatures up to 90 °C, with peaks above this maximum.

2 References

This standard makes reference to the following British Standards:

BS 1916, *Limits and fits for engineering — Part 1: Limits and tolerances*.

BS 2752, *Polychloroprene rubber*.

BS F 68, *The storage and inspection in store of vulcanized rubber items*.

BS F 69, *Packaging and identification of vulcanized rubber items*.

3 Material

The material shall comply with the requirements specified in BS 2752, grade C60 (Hardness 60 + 5, – 4° IRHD).

NOTE Alternatively, the grommets may be manufactured from material complying with M.O.D. Specification DTD 5514, grade D.

4 Dimensions

4.1 The grommets shall conform to the dimensions shown in Table 1 within the tolerances shown in Table 2.

4.2 The diameters of the panel holes into which the grommets are fitted should be equal to dimension *W* shown in Table 1, with H12 tolerances in accordance with BS 1916

NOTE The dimensions in Table 1 are identical with those of BS 1767²⁾, BS SP 93, SBAC series AS 44404, AS 44405 and AS 44406.

5 Finish

5.1 All flash and spew shall be removed by the manufacturer.

5.2 The surfaces shall be free from imperfections such as blisters and excessive porosity and bloom.

6 Identification and packaging

The grommets shall be identified and packaged to the requirements specified in BS F 69.

7 Inspection and life control in stores

When required, and unless otherwise controlled, the inspection and stores lifting shall be in accordance with BS F 68.

²⁾ The range of BS 1767 is slightly greater than that of this standard.

Table 1 — Dimensions and part numbers

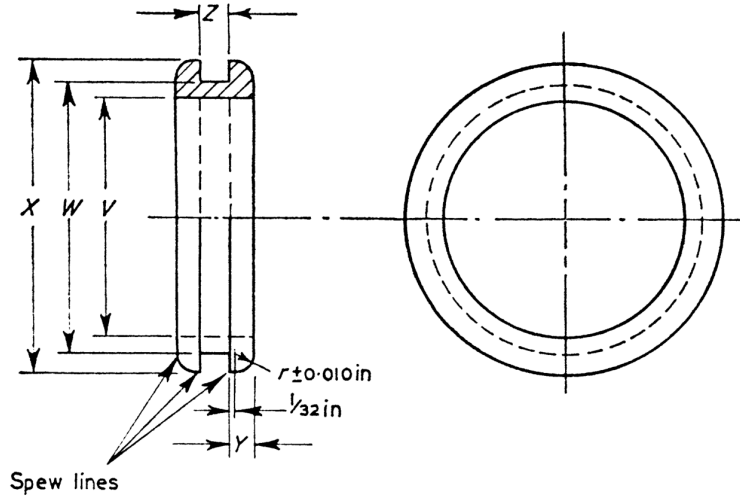


Figure 1 — Grommet

Dimensions in inches

V	W	X	Y	Z					
				0.04	0.07	0.10	0.15	0.20	0.25
PART NUMBERS									
1/16	3/16	0.313	0.094	A02	B02	—	—	—	—
1/8	1/4	0.375	0.094	A04	B04	C04	D04	E04	F04
3/16	5/16	0.438	0.094	A06	B06	C06	D06	E06	F06
1/4	3/8	0.500	0.094	A08	B08	C08	D08	E08	F08
5/16	7/16	0.625	0.125	A10	B10	C10	D10	E10	F10
3/8	1/2	0.688	0.125	A12	B12	C12	D12	E12	F12
7/16	5/8	0.813	0.125	A14	B14	C14	D14	E14	F14
1/2	11/16	0.875	0.125	A16	B16	C16	D16	E16	F16
9/16	3/4	1.000	0.125	A18	B18	C18	D18	E18	F18
5/8	13/16	1.063	0.125	A20	B20	C20	D20	E20	F20
11/16	15/16	1.188	0.125	A22	B22	C22	D22	E22	F22
3/4	1	1.250	0.125	A24	B24	C24	D24	E24	F24
7/8	1 1/8	1.438	0.156	A28	B28	C28	D28	E28	F28
1	1 1/4	1.563	0.156	A32	B32	C32	D32	E32	F32
1 1/8	1 3/8	1.688	0.156	A36	B36	C36	D36	E36	F36
1 1/4	1 1/2	1.813	0.156	A40	B40	C40	D40	E40	F40
1 3/8	1 5/8	1.938	0.156	A44	B44	C44	D44	E44	F44
1 1/2	1 3/4	2.125	0.188	A48	B48	C48	D48	E48	F48
1 3/4	2	2.375	0.188	A56	B56	C56	D56	E56	F56
2	2 1/4	2.625	0.188	A64	B64	C64	D64	E64	F64

Table 2 — Tolerances

Dimensions in inches

Dimension	Range of sizes	Tolerance
<i>V</i>	$\frac{1}{16}$ to $\frac{3}{4}$ inclusive $\frac{7}{8}$ to 2	+0.000–0.020 +0.000–0.040
<i>W</i>	$\frac{3}{16}$ to 1 inclusive $1\frac{1}{8}$ to $2\frac{1}{4}$	+0.020–0.000 +0.020–0.000
<i>X</i>	all sizes	+0.030–0.000
<i>Y</i>	all sizes	+0.010–0.000
<i>Z</i>	all sizes	+0.020–0.000
Concentricity of diameters <i>W</i> and <i>V</i>	Diameter <i>V</i> : $\frac{1}{16}$ to $\frac{1}{2}$ $\frac{9}{16}$ to 2	<i>W</i> in relation to <i>V</i> to be concentric within 0.010 F.I.M. 0.020 F.I.M.

8 Example of call-up

A grommet with bore diameter of $\frac{1}{2}$ inch and a groove width of 0.1 inch would be called up as:

SP 95
C 16
 British Standard— —Size code selected from table 1.

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