

# SBR<sup>o</sup>

Southbourne Rubber

## Solutions from a Single Source

Precision aero grade elastomeric mouldings, O-rings, seals, gaskets and custom components.

### Product Portfolio



O-rings



Gaskets



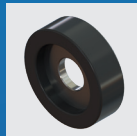
Grommets



Washers



Diaphragms



Anti-vibration



Extrusion



Gaiters & Bellows



Custom Components



## Responsive Service

Lean, agile and customer focused we pride ourselves on our ability to maintain a highly responsive level of service for our customers.

Across industry, we have gained a reputation for high performing products and service quality. Our component portfolio is made up of a large range of both standard and make-to-print products.

## Quality at our Core

SBR<sup>o</sup> is committed to meeting our partners' expectations of a formal Quality Management System:

- AS9100D
- First Article Inspection Report (FAIR) to AS9102
- Net Inspect Compliant
- AS13002 | Requirements for Developing and Qualifying Alternate Inspection Frequency Plans
- AS13003 | Measurement System Analysis for the Aero Engine Supply Chain
- AS13004 | Process Failure Mode and Effects Analysis (PFMEA) and Control Plans
- Zero Defects
- Cage Code: K8779

## Custom Capability

Specialists in custom mouldings, we utilise our technological and industry knowledge to support our customers with make-to-print, NPI and design work:

We produce from some of the most advanced materials available, ensuring superior operational performance and safety. Our capabilities include:

- Critical tolerances
- Design support
- Material expertise
- Reverse engineering

## Aero Applications

With over 50 years of experience in the aerospace sector, we have a deep understanding of the industry.

Our products are designed to support our customers' highest specifications across a range of applications including:

- Avionics
- Actuation
- Landing gear
- Interiors
- Fuel control
- Engine systems

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A MEMBER OF  
THE WEST GROUP  
OF COMPANIES

## Processes & Services

- Compression & Injection Moulding
- Extrusion
- Cryogenic Deflashing
- Mould to Metal & Fabric
- Digital Cutting

## Key Product Benefits

- Performance excellence
- Flexible capability for design into many applications
- Aerospace specification materials
- Compliant with approvals and standards

# STANDARD TOLERANCE GUIDE SHEET

Provided for general guidance only, contact us at Southbourne Rubber Ltd for any specific requirements.

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## Rubber Moulding

Linear Dimensions (BS ISO 3302-1)

Nominal Dimensions		Class M1		Class M2		Class M3		Class M4
Above	Up to and including	F±	C±	F±	C±	F±	C±	F & C±
0	4.0	0.08	0.10	0.10	0.15	0.25	0.40	0.50
4.0	6.3	0.10	0.12	0.15	0.20	0.30	0.50	0.70
6.3	10.0	0.10	0.15	0.20	0.20	0.40	0.60	0.80
10.0	16.0	0.15	0.20	0.20	0.25	0.50	0.80	1.00
16.0	25.0	0.20	0.20	0.25	0.35	0.60	1.00	1.30
25.0	40.0	0.20	0.25	0.35	0.40	0.80	1.30	1.60
40.0	63.0	0.25	0.35	0.40	0.50	1.00	1.60	2.00
63.0	100.0	0.35	0.40	0.50	0.70	1.30	2.00	2.50
100.0	160.0	0.40	0.50	0.70	0.80	0.8%	1.3%	1.5%
160.0	∞	0.3%	0.4%	0.5%	0.7%			

F | Fixed dimensions; dimensions created by features on the same part of the tool.

C | Closure dimensions; dimensions that are created across two mating parts of a tool and therefore more prone to variation.

All values in millimetres unless otherwise stated.

Hardness tolerance variation from nominal

Shore A | ± 5°

IRHD | ± 5°

## Extrusion

Cross-sectional dimensions (BS ISO 3302-1, E2)

Range	0 - 1.5	1.5 - 2.5	2.5 - 4.0	4.0 - 6.3	6.3 - 10	10 - 16	16 - 25	25 - 40	40 - 63	63 - 100
Tolerance ±	0.25	0.35	0.40	0.50	0.70	0.80	1.00	1.30	1.60	2.00

Range | Above - up to and including. All values in millimetres unless otherwise stated.

## Machined Rubbers & Plastics

Linear Dimensions (DIN ISO 2768-1 m)

Range	0 - 6mm	6 - 30mm	30 - 120mm	120 - 400mm	400 - 900mm
Tolerance ±	± 0.10mm	± 0.20mm	± 0.30mm	± 0.50mm	± 0.80mm

Hardness tolerance variation from nominal

Shore A | ± 5°

IRHD | ± 5°

## Cutting & Sheet Material

Linear Dimensions

	Punched parts		Hand cut parts including hand cut strip		Strip cut parts (width ± 0.50mm)	
Range	0 - 200mm	> 200mm	0mm - 1000mm	> 1000mm	0mm - 1000mm	> 1000mm
Tolerance ±	± 0.20mm	± 0.50mm	± 1mm	± 0.5%	± 1.00mm	± 0.5%

Thickness

0mm - 50mm | ± 0.25mm

Hardness tolerance variation from nominal

Shore A | ± 5°

IRHD | ± 5°