

# D3O® SET FOAMS



**D3O** uses a combination of patented, patent-pending and proprietary technologies to make rate sensitive, soft, flexible materials with high shock absorbing properties.

Our extensive material portfolio is compatible with many different production processes, with each material grade formulated and tuned to deliver specific performance properties.

Our current materials portfolio falls into four groups: Set Foams (Sf), Formable Foams (Ff), Set Elastomers (Se) and Formable Elastomers (Fe).

The **D3O® Set Foam** portfolio offers the ultimate in soft, flexible and lightweight impact protection and includes a number of D3O's established material grades including: ST; XT; Shock+; Decell; Pulse; and Aero.

**D3O® Set Foam** solutions are developed for markets where high impact energies are experienced.

## D3O® Set Foams

Code name	Synonym	Density range	Hardness range	Tensile strength	Split tear strength	Elongation at break	Compressive strength	Flexural modulus	Tensile modulus	Deceleration 4.5 J	Energy return 4.5 J	Compression set	Water absorbency	Impact protection	Accelerated ageing (heat)
SF001	ST	400 - 550	76	1.51	0.91	200	140	11.1	0.47	48	7	1.5	1	3.9	-2
SF005	XT	350 - 550	81	1.80	1.29	200	200	13.3	0.45	31	10	10	5	3.5	-1
SF006	Shock Plus	500 - 700	84	1.89	1.14	185	330	18.4	0.93	17	31	10	2	4.3	-5
SF007	Decell B	280 - 320	72	1.62	1.07	235	130	10.2	0.62	13	20	4	26	6.2	-16
SF010	Aero	259 - 269	47	0.50	0.29	185	40	4.4	0.60	12	10	1	2	3.4	7
SF012	Milicell A	400 - 420	88	2.64	3.36	265	240	25.4	1.48	19	24	6	6	4.6	-9
SF016	Decell A	300 - 330	81	2.84	2.29	300	200	20.2	1.00	15	21	8	8	4.7	-12
Method reference*		ISO 845: 2009	ASTM D2240 - 05 (2010)	ISO 1798:2008	SATRA TM65	ISO 1798:2008	ASTM D3575-14D	DTS052	DTS061	DTS002-2	DTS002-2	BS EN ISO 1856:2001	ISO 62 : method 1	EN 1621 (10J)	ISO 2440: 2000 (ageing) EN 1621:1997 (impact)
Units		kg/m3	Shore 00	MPa	N/mm	%	kPa	MPa	MPa	g	%	%	%	kN	%

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Values shown represent typical product characteristics. For full details including material properties and product tolerances, please request SOQ document from D3O representative. The information provided is not intended to and does not create any warranties, expressed or implied, including any warranty of merchantability of fitness for a particular purpose. In accordance with the Company's policy of continuous improvement, D3O reserves the right to apply such improvements to its products and materials without notice. This data sheet shall not be reproduced or amended without the written consent of Design Blue Limited.

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