

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 five groups: Set Foams (Sf), Recycled Foams (Rf), Set Elastomers (Se), Formable Elastomers (Fe) and Impact Additives (iA).

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, XTi, Decell, US Decell TRUST, Aero and AeroMax.

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

D3O® Set Foams

Code Name	Material	Density	Hardness	Tensile Young's Modulus	EAB	Tensile Strength	Compressive Stress at 25% Strain	Compressive Stress at 50% Strain	Flexural Modulus	Split Tear Strength	Water Absorbency	Deceleration (4.2J)	Energy Return (4.2J)	Compression Set	Impact Protection (10J)	Impact Protection (20J)	Impact Protection (30J)	Impact Protection (50J)	Accelerated Heat Ageing Percentage Increase in PTF (30J)	Accelerated Humidity Ageing Percentage Increase in PTF (30J)
SF001	ST	454.7	73.6	1.19	194	1.5	0.289	0.699	1.4	1.5	6	21	11	0.7	4.5	6.7	9.1	15	9.6	-1.7
SF005	XTi	503.1	76.8	1.17	201	1.8	0.352	0.847	1.6	1.8	11	19	13	6.2	3.9	6.2	9.1	16	-1.5	12.2
SF007	Decell	309.1	67.0	0.92	180	1.2	0.141	0.260	1.4	0.9	110	17	22	2.2	5.1	10.8	19.4	-	3.6	55.1
SF019	Decell Trust (China)	351.8	69.0	0.86	211	1.3	0.182	0.342	1.3	1.0	99	17	19	8.0	3.2	8.0	14.6	29	11.0	74.4
SF010	Aero	244.7	45.8	0.56	164	0.6	0.080	0.180	0.4	0.3	41	26	14	0.7	3.4	9.2	20.6	#DIV/0!	11.3	-17.3
SF028	AeroMax	220.9	35.9	0.50	136	0.5	0.060	0.109	0.3	0.4	9	9	17	0.2	5.1	16.9	27.9	-	6.7	-10.4
Method Reference*		ISO 845:2009	ASTM D2240 -05 (2010)	DTS023	ISO 1798:2008	ISO 1798:2008	DTS006	DTS006		SATRA TM65	DTS028	DTS001	ASTM F614-99 (2006)	DTS005	EN 1621:1 Anvil/ EN1621-1 2.5kg	EN 1621:1 Anvil/ EN1621-1 2.5kg	EN 1621:1 Anvil/ EN1621-1 5kg	EN 1621:1 Anvil/ EN1621-1 15kg	BS EN ISO 2440:2000 EN 1621:1 Anvil/ EN1621-1 5kg	BS EN ISO 2440:2000 EN 1621:1 Anvil/ EN1621-1 5kg
Units		kg/m ³	Shore OO	MPa	%	MPa	MPa	MPa	MPa	N/mm	%	g	%	%	kN	kN	kN	kN	%	%

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*Values shown represent typical product characteristics.