

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 six groups: Set Foams (Sf), Formable Foams (Ff), 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	Synonym	Density	Hardness	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 (10 J)	Impact protection (20 J)	Impact protection (30 J)	Accelerated ageing (heat)	Accelerated ageing (humidity)
SF001	ST	455.0	73.6	1.5	1.5	193.9	1290	1.4	1.19	20.5	11	0.7	6.0	4.5	6.7	9.2	9.6	-1.7
SF005	XTi	504.0	78.8	1.8	1.9	190.0	2400	2.0	1.16	22.4	11	7.3	9.0	4.2	6.4	9.1	1.7	15.4
SF007	Decell B	309.0	67.0	1.2	0.9	179.9	770	1.4	0.92	17.4	22	2.2	110.0	5.0	11.0	19.4	3.6	55.1
SF019	Decell Trust (China)	352.0	69.0	1.3	1.0	210.8	730	1.3	0.86	17.1	18	8.0	99	3.2	8.0	14.6	11.6	74.4
SF010	Aero	245.0	46.0	0.6	0.3	164.3	346	0.4	0.56	26.4	14	0.7	41	3.4	9.2	18.9	11.0	-17.3
SF028	AeroMax	221.0	35.9	0.5	0.4	135.8	390	0.3	0.50	8.5	17	0.2	9.0	5.1	16.9	28.0	6.7	-10.4
Method reference*		ISO 845:2009	ASTM D2240 - 05 (2010)	ISO 1798:2008	SATRA TM65	ISO 1798:2008	ASTM D3575-14D	DTS052	DTS061	DTS002-2	ASTM F614-99 (2006)	EN ISO 1856	DTS028	EN 1621:1 (2.5 Kg, 10J)	EN 1621:1 (2.5 Kg, 20J)	EN 1621:1 (5 Kg, 30J)	BS EN ISO 2440:2000 (ageing)	BS EN ISO 2440:2000 (ageing)
Units		kg/m ³	Shore OO	MPa	N/mm	%	kPa	MPa	MPa	g	%	%	%	kN	kN	kN	%	%

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*Values shown represent typical product characteristics.