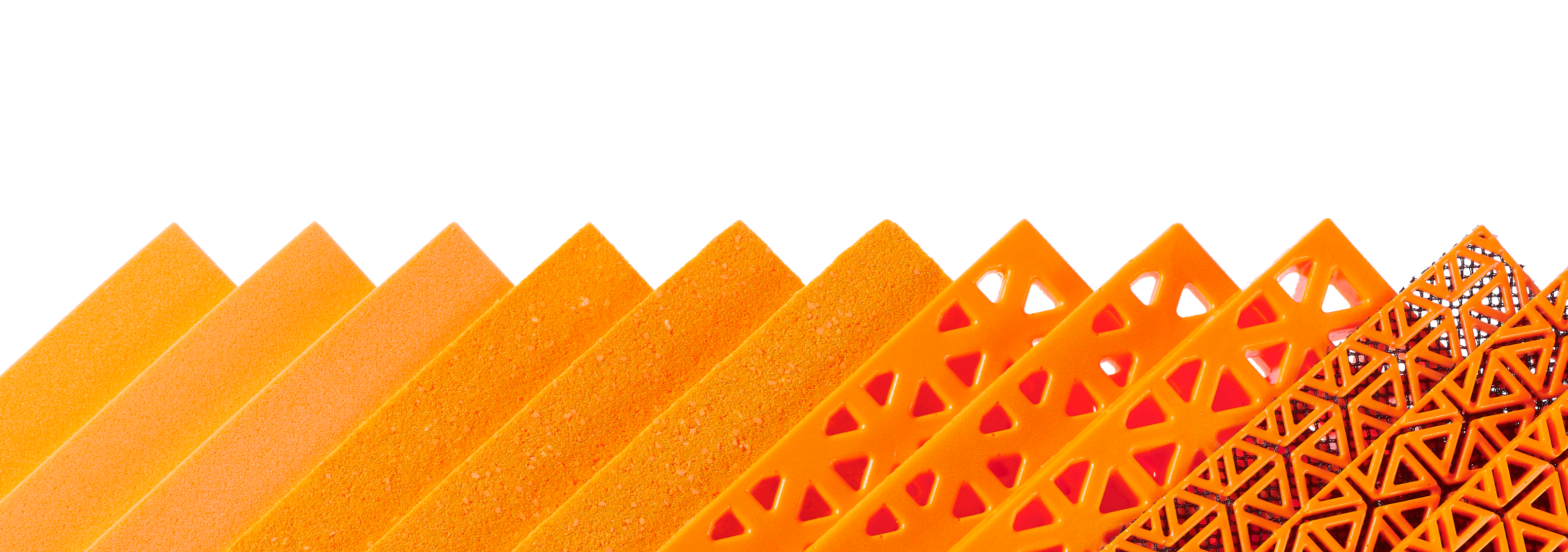


D30®
Material
Sheet Guide

D30®



D30® Sheet Materials

Mitigate Fear. Prevent Injury.
D30's dilatant materials are designed to absorb and dissipate energy in response to blunt force impact.

D3O has various sheet material options designed for simple integration into your product range:

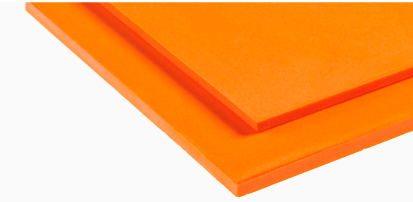
- Fastest route to market with a D3O solution, no development required
- Easy to post-process and integrate within finished product
- High-impact performing, low profile, flexible solutions
- 4 different sheet constructions
- 8 different material formulations

No matter the application, D3O has sheet options to help take your product to the next level.

Step 1: Pick the Type of Sheet

D3O® Solid Sheet

Durability	● ●
Tolerances	● ● ●
Ventilation	● ●
Flexibility	● ● ● ●
Lightweight	● ● ● ●
Cushioning	● ● ● ● ●



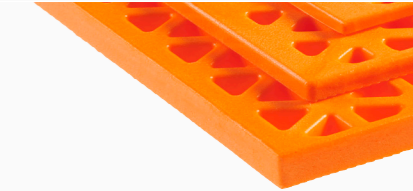
D3O® Skived Sheet

Durability	● ● ● ●
Tolerances	● ● ● ● ●
Ventilation	●
Flexibility	● ●
Lightweight	● ●
Cushioning	● ● ● ●



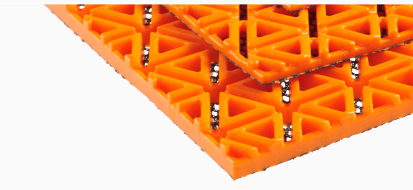
D3O® Trivent Sheet

Durability	● ● ●
Tolerances	● ● ● ● ● ●
Ventilation	● ● ● ●
Flexibility	● ● ●
Lightweight	● ● ● ● ● ●
Cushioning	● ● ● ● ● ●



D3O® Impact Print™ Sheet

Durability	● ● ● ● ●
Tolerances	● ● ● ● ● ●
Ventilation	● ● ● ● ● ●
Flexibility	● ● ● ● ● ●
Lightweight	●
Cushioning	●



Step 2: Pick the Formulation

High density
High impacts

Low density
Low impacts

Formulation	Impact type	Density (4mm)	Hardness (4mm)	Temperature stability	Material Type
Impact Print™	High energy	1.13	55 (Shore A)	Great (geometry)	Set Elastomer
XTi	High energy	0.52	76 (Shore 00)	Good	Set Foams
ST	High energy	0.48	76 (Shore 00)	Low	
DECELL	Low-mid energy	0.39	70 (Shore 00)	Good	
AERO	Low-mid energy	0.37	58 (Shore 00)	Average	
AEROMAX	Low-mid energy	0.23	40 (Shore 00)	Average	
US Decell TRUST* (Berry Compliant)	Low-mid energy	0.22	58 (Shore 00)	Good	
ZERO Mid	Low energy	0.29	60 (Shore 00)	Great	
ZERO Low	Low energy	0.24	49 (Shore 00)	Great	

*US Decell TRUST: density and hardness data based on 5mm sheet

Step 3: Pick the Dimensions

High density
High impacts

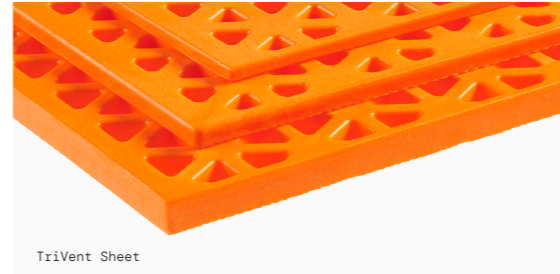
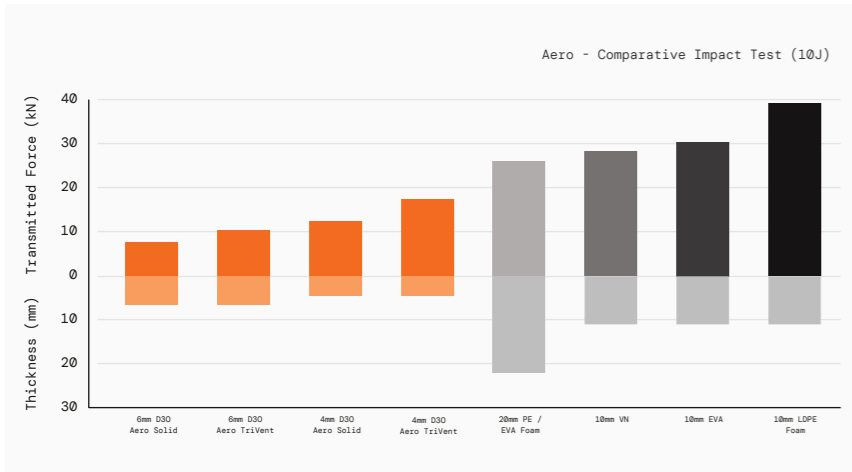
Low density
Low impacts

Formulation	Solid 369 x 255mm	Skived 369 x 255mm	Skived 332 x 300mm	Skived 1000 x 1000mm	TriVent 490 x 290mm	Impact Print™ 500 x 500mm
Impact Print™						2, 4, 6mm
XTi	4, 6, 10mm				4, 6, 10mm	
ST	4, 6, 10mm				4, 6, 10mm	
DECELL	4, 6mm				4, 6mm	
AERO	4, 6mm				4, 6mm	
AEROMAX				2, 4, 6, 8, 10mm		
US Decell TRUST (Berry Compliant)		2, 4, 6, 8, 10mm	2, 4, 6, 10mm			
ZERO Low/Mid				2, 4, 6, 8, 10mm		

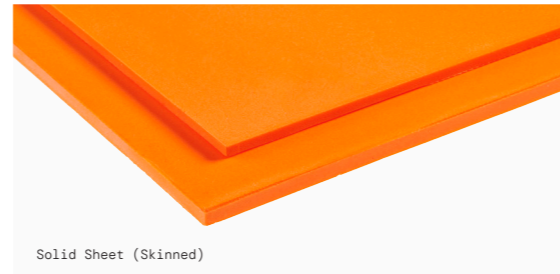
Aero



A lightweight, versatile material optimised for low to moderate impact energies, D3O® Aero is frequently used for helmet liners, palm padding, back-of-hand protection and back protectors.



TriVent Sheet



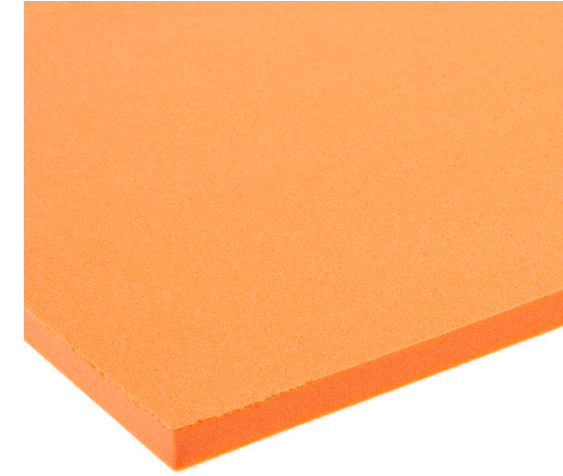
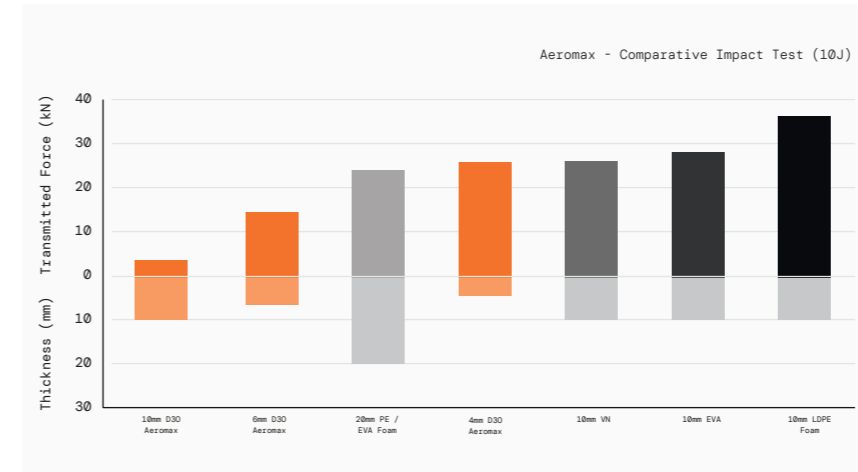
Solid Sheet (Skinned)

Material	Aero			
Product Name	Solid 4mm	Solid 6mm	TriVent 4mm	TriVent 6mm
Product Code	11191	11192	14206	14207
Colour	Orange	Orange	Orange	Orange
Dimensions (mm)	369 x 255	369 x 255	490 x 290	490 x 290
Thickness (mm)	4	6	4	6
Density (g/cm³)	0.37	0.33	0.35	0.30
Material Type	Foam	Foam	Foam	Foam

Aeromax



D3O® AeroMax takes similar performance properties of D3O® Aero and makes it available in larger sheets.



Skived Sheet

Material	Aeromax				
Product Name	Skived 2mm	Skived 4mm	Skived 6mm	Skived 8mm	Skived 10mm
Product Code	13440	13441	13657	14195	13591
Colour	Orange	Orange	Orange	Orange	Orange
Dimensions (mm)	1000 x 1000	1000 x 1000	1000 x 1000	1000 x 1000	1000 x 1000
Thickness (mm)	2	4	6	8	10
Density (g/cm³)	0.22	0.22	0.22	0.22	0.22
Material Type	Foam	Foam	Foam	Foam	Foam



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