

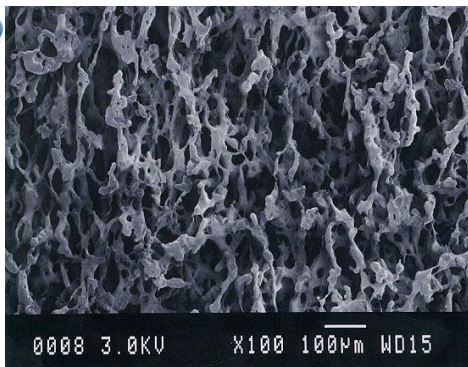
Technical Bulletin

MAPS-3D

3D Open Cell Porous Molding Standard/Hydrophilic

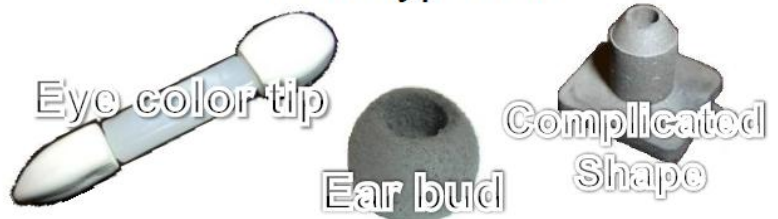
Description: MAPS-3D is a three dimensional open-celled uniformly porous thermoplastic foam formed by the injection molding process. Compatible with any thermoplastic, MAPS technology allows complete control of foam cell size, porosity, density and also matrix polymer resin. Cell size ranges between 10 μ m to 400 μ m with porosity from 64% to 85% can be easily tailored.

1. High porosity 3D molding process
 - Complex Shapes, Softness, and tailored permeability
2. Insert molding options
 - Reducing assembly process
3. Abrasion resistance
4. Hydrolysis resistance
5. Chemical resistance (Alcohol , Acid, Solvent)
6. Lint and particulate free
7. Surface modifications – Hydrophilicity



Cell structure

Prototype Ex.



Cell Size	10 – 400 μ m
Porosity	64 – 85 %

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K 001

Cell size 200µm, Porosity 80%

Material	K 001
Density g/cm ³ (pcf)	0.200 (12.49pcf)
Tensile Strength KPa (psi)	729 (105psi)
Elongation (%)	244
Hardness (ASKER-C)	22

TM 38

Cell size 10µm, Porosity 64%

Material	KTM38
Density g/cm ³ (pcf)	0.330(20.6pcf)
Tensile Strength KPa (psi)	1,807 (262psi)
Elongation (%)	555
Hardness (ASKER-C)	52

VT 20

Cell size 90µm, Porosity 80%

Material	VT 20
Density g/cm ³ (pcf)	0.170(10.6pcf)
Tensile Strength KPa (psi)	490 (71psi)
Elongation (%)	80
Hardness (ASKER-C)	11

ST 15

Cell size 50µm, Porosity 85%

Material	ST 15
Density g/cm ³ (pcf)	0.139(8.68pcf)
Tensile Strength KPa (psi)	1,046(152psi)
Elongation (%)	394
Hardness (ASKER-C)	6