## Overview of material properties 1/2



	<b>EPS</b> Expanded polystyrene	Re-EPS <sup>1</sup> Expanded polystyrene Recycled 35 and 95%	<b>EPP</b> Expanded Polypropylene	Re-EPP¹ Expanded Polypropylene Recycled 15 – 90%	<b>P-EPP</b> Expanded, porous polypropylene
Blowing agent	Pentane	Pentane	Air	Air	Air
Part density (g/l) <sup>2</sup>	15-410	20-40	20-140	20-95	30-55
Heat resistance (°C)	+80	+80	+110	+110	+110
Flame retardant	Possible (FR)	No <sup>1</sup>	Possible (FR)	No	No
Recovery	Very low	Very low	Very good	Very good	Very good
Creep properties	Very good	Very good	Good	Good	Good
Antistatic	Possible	Possible	Possible	No	No
Water absorption (Vol.%)	~ 1.0-1.5	~ 1.0-1.5	~ 1.0-1.5	~ 1.0-1.5	~ 1.0-1.5
Heat conductivity (W/m*K)	0.030-0.038	0.030-0.038	0.035-0.047	0.035-0.047	-
Thermal expansion (10 <sup>-6</sup> /K)	50-70	50-70	100	100	100
Colours, Standard	White, black	White to light grey	White, black, red, grey, blue, green, yellow, orange, terracotta, pink	Black, green, grey	Grey
Colours, non standard	Blue, light blue, yellow, green, grey, brown, olive, anthracite	None	New colour from 10 tons	None	None
Colours, dyed	Light pink, light blue, light green, light grey	Light pink, light blue, light green, light grey	None	None	None
Complies with food standards	Yes	Yes/no <sup>1</sup>	Yes	No	Yes

<sup>&</sup>lt;sup>1</sup> We recommend considering the use of recycled material in relation to the product. We would be happy to advise you on this.

<sup>&</sup>lt;sup>2</sup> Depending on the part geometry

<sup>&</sup>lt;sup>3</sup> Application-specific consideration is recommended. We would be happy to advise you on this.



	Tara-foam Bio Expanded biobased and biodegradable material	<b>EPS/EPE</b> Expanded copolymer polystyrene/polyethylene	PS/PPE Polystyrene/expanded copolymer polyphenylenether	<b>xEPE</b> expanded, crosslinked polyethylene tara-foam® E
Blowing agent	Air	Butane	Inorganic gas	Air
Part density (g/l) <sup>2</sup>	50-85	16-65	100-200	20-100
Heat resistance (°C)	+110	+85	+90	+90
Flame retardant	No	No	Flame-retarding	No
Recovery	Good	Good	Very low	Very good
Creep properties	Good	Good	Very good	Enough
Antistatic	No	Possible	No	Possible
Water absorption (Vol.%)	5-7	-	-	~ 0.1
Heat conductivity (W/m*K)	0.034	0.037-0.040	0.038-0.041	0.036-0.045
Thermal expansion (10 <sup>-6</sup> /K)	-	50-70	50	300
Colours, Standard	White	White, black	Grey	White
Colours, dyed	On demand	None	None	None
Complies with food standards	Yes <sup>3</sup>	Yes	No	Yes

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<sup>&</sup>lt;sup>2</sup> Depending on the part geometry

<sup>&</sup>lt;sup>3</sup> Application-specific consideration is recommended. We would be happy to advise you on this.