

## **Material characteristics**

	<b>EPS</b> Expanded polystyrene	Re-EPS¹ Expanded polystyrene Recyclet 100%	<b>EPS / EPE</b> Expanded copolymer Polystyrene / polyethylene
Expension agent	Pentane	Pentane	Butane
Part density (g/l) <sup>2</sup>	15-410	20-40	16-65
Heat distortion temperature (°C)	+80	+80	+85
Flame retardant	Possible	No <sup>1</sup>	No
Resilience	Very low	Very low	Good
Creep behaviour	Very good	Very good	Good
Antistatic properties	Possible	Possible	Possible
Water absorption (vol.%)	~ 1.0-1.5	~ 1.0-1.5	
Thermal conductivity (W/m*K)	0.030-0.038	0.030-0.038	0.037-0.040
Thermal expansion (10 <sup>-6</sup> /K)	50-70	50-70	50-70
Colours, standard			
Other colours, non-standard			· -
Colours, dyed			-
Food compatibility	Yes	Yes / No <sup>1</sup>	Yes / No

<sup>&</sup>lt;sup>1</sup>We would be happy to advise you when considering the use of recyclate in products. <sup>2</sup>Depending on component geometry. <sup>3</sup>An application-specific approach is recommended. We would be happy to advise you on this.



## **Material characteristics**

	<b>EPP</b> Expanded polypropylene	Re-EPP <sup>1</sup> Expandiertes Polypropylen Recyclet 15 - 90%	<b>P-EPP</b> Expanded, porous polypropylene
Expension agent	Air	Air	Air
Part density (g/l)²	20-140	20-95	30-55
Heat distortion temperature (°C)	+110	+110	+110
Flame retardant	Possible	No	No
Resilience	Very good	Very good	Very good
Creep behaviour	Good	Good	Good
Antistatic properties	Possible	No	No
Water absorption (vol.%)	~ 1.0-1.5	~ 1.0-1.5	~ 1.0-1.5
Thermal conductivity (W/m*K)	0.035-0.047	0.035-0.047	-
Thermal expansion (10 <sup>-9</sup> K)	100	100	100
Colours, standard			
Other colours, non-standard	New colours from 10 tonnes upwards	-	-
Colours, dyed		-	-
Food compatibility	Yes	No	Yes

<sup>&</sup>lt;sup>1</sup>We would be happy to advise you when considering the use of recyclate in products. <sup>2</sup>Depending on component geometry. <sup>3</sup>An application-specific approach is recommended. We would be happy to advise you on this.



## **Material characteristics**

	<b>Tara-foam Bio</b> Expanded bio-based and biodegradable biodegradable material	PS / PPE Polystyrene/expanded copolymer / polyphenylene ether	<b>x EPE</b> Expanded, cross-linked polyethylene tara-foam® E
Expension agent	Air	Inorganic gas	Air
Part density (g/l²	50-85	100-200	20-100
Heat distortion temperature (°C)	+110	+90	+90
Flame retardant	No	Flame retardant	No
Resilience	Good	Very low	Very good
Creep behaviour	Good	Very good	Sufficient
Antistatic properties	No	No	Possible
Water absorption (vol.%)	5-7	-	~ 0.1
Thermal conductivity (W/m*K)	0.034	0.038-0.041	0.036-0.045
Thermal expansion (10 -9K)	-	50	300
Colours, standard			
Other colours, non-standard	<u>-</u>	-	- -
Colours, dyed	On request	-	-
Food compatibility	Yes <sup>3</sup>	No	Yes

<sup>&</sup>lt;sup>1</sup>We would be happy to advise you when considering the use of recyclate in products. <sup>2</sup>Depending on component geometry. <sup>3</sup>An application-specific approach is recommended. We would be happy to advise you on this.