

Data sheet for thermoplastics in general

		Low density Polyethylene LDPE	High density Polyethylene HDPE	Polypropylene PP
Physical properties of thermoplastics	natural colour	transparent	translucent white	transparent
	state at 20°C	flexible	flexible/rigid	flexible/rigid
	specific weight at 20°C	approx. 0,92	approx. 0,95	approx. 0,905
	Shore hardness at 20°C	approx. 90	approx. 95	approx. 100
	tear strength at 20°C	approx. 10 N/mm ²	approx. 20 N/mm ²	approx. 30 N/mm ²
	elongation at break at 20°C	approx. 500%	approx. 500%	approx. 650%
	water absorption	traces	traces	traces
	diffusion	hydrocarbons	hydrocarbons	hydrocarbons

This information only provides a general indication.

Chemical properties of thermoplastics	resistant against	non-oxidising alkalis, organic solvents excl. chlorinated hydrocarbons it is advisable to carry out storage tests to test for diffusion		
	non-resistant against	oxidising acids, oils, fats, chlorinated hydrocarbons	oxidising acids, chlorinated hydrocarbons	see LDPE

This information only provides a general indication.

Applications	container size	0,001 - 1000 l	0,001 - 3000 l	0,01 - 120 l
	type of contents	cosmetic preparations, foodstuffs, chemicals	see LDPE aromatic hydrocarbons, oils, fats	see HDPE
	transformation of contents	none caused by the material itself, possibly due to diffusion		
	printing options	screen	screen	screen
	engraving suitability good	good	very good	
	Operational temperature	-40°C-95°C	-40°C-110°C	0°C-130°C

		Rigid PVC	Co-Polyester PETG
Physical properties of thermoplastics	natural colour	crystal clear	crystal clear
	state at 20°C	brittle/impact resistant	brittle/impact resistant
	specific weight at 20°C	approx. 1,38	approx. 1,25
	Shore hardness at 20°C	approx. 100	approx. 100
	tear strength at 20°C	approx. 50 N/mm ²	approx. 50 N/mm ²
	elongation at break at 20°C	approx. 30%	approx. 15%
	water absorption	traces	traces

	diffusion	hydrocarbons	hydrocarbons
This information only provides a general indication.			
Chemical properties of thermoplastics	resistant against	acids, alkalis, petrol, oils, fats, terpentine, alcohol	petrol, oils,fats, terpentine
	non-resistant against	esters, ketones, benzene, chlorinated hydrocarbons, hydrogen sulphide	esters, ketones, benzene, chlorinated hydrocarbons
This information only provides a general indication.			
Applications	container size	0,01 - 5 l	0,01 - 1 l
	type of contents	wax polish, petrol, oils, fats, shoecream, cosmetic preparations, foodstuffs	cosmetic preparations, foodstuffs
	transformation of contents		
	printing options	screen	screen
	engraving suitability	vulnerable to cracking around sharp edges	vulnerable to cracking around sharp edges
	Operational temperature	-30°C-70°C	-40°C-65°C

		Polyamide	Polycarbonate
Physical properties of thermoplastics	natural colour	up to 0,5mm wall thickness crystal clear	crystal clear
	state at 20°C	flexible/tough vulnerable to folding	flexible/rigid
	specific weight at 20°C	approx. 1,12	approx. 1,2
	Shore hardness; at 20°C	approx. 100	approx. 100
	tear strength at 20°C	approx. 45 N/mm ²	approx. 60 N/mm ²
	elongation at break at 20°C	approx. 200%	approx. 100%
	water absorption	high	traces
	diffusion	water, hydrocarbons	water, hy

This information only provides a general indication.			
Chemical properties of thermoplastics	resistant against	petrol, benzene, chlorinated hydrocarbons, oils, fats	weak acids
	Non-resistant against	acids, alkalis, alcohol, water	alkalis, strong acids, esters, ketones, benzene, chlorinated hydrocarbons
This information only provides a general indication.			
Applications	container size	0,01 - 60 l	0,01 - 30
	type of contents	petrol, oils, fats, stain remover, (tri, tetra)	cosmetic preparations, foodstuffs
	transformation of contents	drying out without becoming moist due to diffusion	none caused by the material itself, possibly due to diffusion

	printing options	screen	screen
	engraving suitability	vulnerable to cracking around sharp edges	vulnerable to cracking around sharp edges
	Operational temperature	0°C-80°C	-40°C-115°C

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