

Acetal Black

DirectPlastics

...not just a quicker delivery!

POM-C (Polyacetal - Copolymer)

Colour: Black

Density: 1.41g/cm³

Material Data Sheet

Mechanical Properties	Parameter	Value	Unit	DIN/EN/ISO
Modulus of elasticity (tensile test)	1mm/min	2800	MPa	527-2
Tensile strength	50mm/min	67	MPa	527-2
Tensile strength at yield	50mm/min	67	MPa	527-2
Elongation at Yield	50mm/min	9	%	527-2
Elongation at break	50mm/min	32	%	527-2
Flexural strength	2mm/min 10N	91	MPa	178
Modulus of elasticity (flexural test)	2mm/min 10N	2600	MPa	178
Compression Strength	1%/2% 5mm/min 10N	20/35	MPa	604
Compression modulus	5mm/min 10N	2300	MPa	604
Impact strength (Charpy)	Max. 7,5J	150	kJ/m ²	179-1eU
Notched impact strength (Charpy)	Max. 7,5J	6	kJ/m ²	179-1eA
Ball indentation hardness	-	165	MPa	2039-1

Thermal Properties	Parameter	Value	Unit	DIN/EN/ISO
Glass transition temperature	-	-60	°C	53765
Melting temperature	-	166	°C	53765
Service temperature	Short term	140	°C	-
Service temperature	Long term	100	°C	-
Thermal expansion (CLTE)	23-60°C, Long	13	10 ⁻⁵ K ⁻¹	11359-1;2
Thermal expansion (CLTE)	23-100°C, Long	14	10 ⁻⁵ K ⁻¹	11359-1;2
Specific heat	-	1.4	J/(g*K)	22007-4:2008
Thermal conductivity	-	0.39	W/(K*m)	22007-4:2008

Electrical properties	Parameter	Value	Unit	DIN/IEC
Surface resistance	-	>10 ¹²	Ω	60093

Other properties	Parameter	Value	Unit	DIN/EN/ISO/IEC
Water absorption	24h/96h (23°C)	0.05/0.1	%	62
Resistance to hot water/bases	-	(+)	-	-
Resistance to weathering	-	(+)	-	-
Flammability (UL94)	Corresponding to	HB	-	60695-11-10

Direct Plastics Ltd. Unit 14 Portland Business Park, Richmond Park Road, Sheffield, S13 8HS

Tel: 0114 2560889 Email: sales@directplastics.co.uk

The following information corresponds with our current knowledge and indicates our products and possible applications. We cannot give a legally binding guarantee of certain properties or the suitability for a specific application. Existing commercial patents must be observed. A definitive quality guarantee is given in our general conditions of sales.

Unless otherwise stated, these values represent averages taken from injection moulding samples.

We reserve the right of technical alterations.

Acetal Natural

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POM-C (Polyacetal - Copolymer)

Colour: Natural

Density: 1.41g/cm³

Material Data Sheet

Mechanical Properties	Parameter	Value	Unit	DIN/EN/ISO
Modulus of elasticity (tensile test)	1mm/min	2800	MPa	527-2
Tensile strength	50mm/min	67	MPa	527-2
Tensile strength at yield	50mm/min	67	MPa	527-2
Elongation at Yield	50mm/min	9	%	527-2
Elongation at break	50mm/min	32	%	527-2
Flexural strength	2mm/min 10N	91	MPa	178
Modulus of elasticity (flexural test)	2mm/min 10N	2600	MPa	178
Compression Strength	1%/2% 5mm/min 10N	20/35	MPa	604
Compression modulus	5mm/min 10N	2300	MPa	604
Impact strength (Charpy)	Max. 7,5J	N.B.	kJ/m ²	179-1eU
Notched impact strength (Charpy)	Max. 7,5J	8	kJ/m ²	179-1eA
Ball indentation hardness	-	165	MPa	2039-1

Thermal Properties	Parameter	Value	Unit	DIN/EN/ISO
Glass transition temperature	-	-60	°C	53765
Melting temperature	-	166	°C	53765
Service temperature	Short term	140	°C	-
Service temperature	Long term	100	°C	-
Thermal expansion (CLTE)	23-60°C, Long	13	10 ⁻⁵ K ⁻¹	11359-1;2
Thermal expansion (CLTE)	23-100°C, Long	14	10 ⁻⁵ K ⁻¹	11359-1;2
Specific heat	-	1.4	J/(g*K)	22007-4:2008
Thermal conductivity	-	0.39	W/(K*m)	22007-4:2008

Electrical properties	Parameter	Value	Unit	DIN/IEC
Surface resistance	-	10 ¹⁴	Ω	60093

Other properties	Parameter	Value	Unit	DIN/EN/ISO/IEC
Water absorption	24h/96h (23°C)	0.05/0.1	%	62
Resistance to hot water/bases	-	(+)	-	-
Resistance to weathering	-	-	-	-
Flammability (UL94)	Corresponding to	HB	-	60695-11-10



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Acetal Natural

POM-C (Polyacetal - Copolymer)

Colour: Natural

Density: 1.41g/cm³

Material Data Sheet

Mechanical Properties	Parameter	Value	Unit	DIN/EN/ISO
Modulus of elasticity (tensile test)	1mm/min	2800	MPa	527-2
Tensile strength	50mm/min	67	MPa	527-2
Tensile strength at yield	50mm/min	67	MPa	527-2
Elongation at Yield	50mm/min	9	%	527-2
Elongation at break	50mm/min	32	%	527-2
Flexural strength	2mm/min 10N	91	MPa	178
Modulus of elasticity (flexural test)	2mm/min 10N	2600	MPa	178
Compression Strength	1%/2% 5mm/min 10N	20/35	MPa	604
Compression modulus	5mm/min 10N	2300	MPa	604
Impact strength (Charpy)	Max. 7,5J	N.B.	kJ/m ²	179-1eU
Notched impact strength (Charpy)	Max. 7,5J	8	kJ/m ²	179-1eA
Ball indentation hardness	-	165	MPa	2039-1

Thermal Properties	Parameter	Value	Unit	DIN/EN/ISO
Glass transition temperature	-	-60	°C	53765
Melting temperature	-	166	°C	53765
Service temperature	Short term	140	°C	-
Service temperature	Long term	100	°C	-
Thermal expansion (CLTE)	23-60°C, Long	13	10 ⁻⁵ K ⁻¹	11359-1;2
Thermal expansion (CLTE)	23-100°C, Long	14	10 ⁻⁵ K ⁻¹	11359-1;2
Specific heat	-	1.4	J/(g*K)	22007-4:2008
Thermal conductivity	-	0.39	W/(K*m)	22007-4:2008

Electrical properties	Parameter	Value	Unit	DIN/IEC
Surface resistance	-	10 ¹⁴	Ω	60093

Other properties	Parameter	Value	Unit	DIN/EN/ISO/IEC
Water absorption	24h/96h (23°C)	0.05/0.1	%	62
Resistance to hot water/bases	-	(+)	-	-
Resistance to weathering	-	-	-	-
Flammability (UL94)	Corresponding to	HB	-	60695-11-10

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Acetal Blue

POM-C (Polyacetal - Copolymer)
Colour: Blue (Food grade)
Density: 1.41g/cm³

Material Data Sheet

Mechanical Properties	Parameter	Value	Unit	DIN/EN/ISO
Modulus of elasticity (tensile test)	1mm/min	2600	N/mm ²	527-2
Tensile strength	50mm/min	63	N/mm ²	527-2
Tensile strength at yield	50mm/min	63	N/mm ²	527-2
Elongation at Yield	50mm/min	-	%	527-2
Noninal % Elongation at break	-	31	%	527-2
Flexural strength	2mm/min 10N	-	MPa	178
Modulus of elasticity (flexural test)	2mm/min 10N	2500	N/mm ²	178
Rockwell Hardness	-	M84	-	2039-2
Compression modulus	5mm/min 10N	-	MPa	604
Impact strength (Charpy)	23 ⁰ C	220	kJ/m ²	179-1eU
Notched impact strength (Charpy)	23 ⁰ C	8	kJ/m ²	179-1eA
Ball indentation hardness	-	140	N/mm ²	2039-1

Thermal Properties	Parameter	Value	Unit	DIN/EN/ISO
Minimum Service temperature	-	-40	°C	-
Melting temperature	-	165	°C	3146
Service temperature	Short term	140	°C	-
Service temperature	Long term	105	°C	-
Heat distortion temperature (HDTA Process)	-	96	°C	75-2
Thermal expansion (CLTE)	23-60°C	1.1*10-4	1/K	53752
Specific heat	-	-	J/(g*K)	22007-4:2008
Thermal conductivity	23 ⁰ C	0.31	W/(K*m)	52612

Electrical properties	Parameter	Value	Unit	DIN/IEC
Surface resistance	-	10 ¹³	Ω	60093



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Other properties	Parameter	Value	Unit	DIN/EN/ISO/IEC
Moisture pick up till saturation (normal climate)	23°C	0.2	%	62
Resistance to hot water/bases	-	(+)	-	-
Water absorption till saturation (in water)	23°C	0.8	%	62
Flammability (UL94)	Corresponding to	HB	-	UL94



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