plastim St 1000® (DIN16972 TG2)

Standard colour(s): natural, black, green
Special colour(s): RAL-K7
Fields of application:
- automobile industry
- mechanical engineering
- transport and conveyor systems
- chemical industry
- paper industry
- nuclear technology
- cement- and limestone works
- harbour facilities

Properties:
- excellent wear resistance and good sliding properties
- high bending- and impact strength
- good chemical resistance

Material designation	St 1000®		
Raw material	PE-UHMW		
Material colour(s)	natural, black, green		
Properties	**Unit**	**Test method**	**Value**
Molecular weight (average molar mass)	g/mol		> 4,4 Mio.
Mechanical properties			
Density	g/cm³	DIN 53479	0,96
Tensile strength	N/mm²	DIN 53455	27
Shore D hardness, 15s - Value	Skala D	DIN 53505	64 – 67
Ball indentation hardness, 30s - Value	N/mm²	DIN ISO 2039 Part 1	38
Ultimate tensile strength	N/mm²	DIN 53455	40,5
Elongation at break	%	DIN ISO / R 527	400
Modulus of elasticity	N/mm²	DIN 53457	700
Notched impact strength (Sharpy)	kJ/m²	DIN 53453	> 80 – 140
Abrasion	%	Sand slurry method	100
Coefficient of friction	μ		0,1 – 0,2
Thermal properties			
Dimensional stability under heat	°C	DIN 53461	47
Vicat softening temperature	°C	DIN 53460	79
Crystalline melting range	°C	DTA	130 – 135
Thermal conductivity at 23 °C	W/ (K * m)	DIN 52612	0,42
Specific heat at 23 °C	kJ/ (K * Kg)		1,8
Coefficient of linear expansion at 23 °C	10^{-5} * (1/K)	DIN 53752	20
Fire behaviour		UL 94	HB
Application temperature (min.)	°C		- 200
Application temperature (constant)	°C		+ 80
Moisture absorption	%		< 0,01
Electrical properties			
Specific volume resistance	Ω * cm	DIN 53482	> 10^{15}
Surface resistance	Ω	DIN 53482	> 10^{14}
Dielectric strength	kV/mm	DIN 53481	45
Dielectric constant at 50 Hz		DIN 53485	1,9

physiologically harmless according to EU-directive 2002/72/EG,
FDA-directive 21CFR177.1520 and 21CFR178.3297

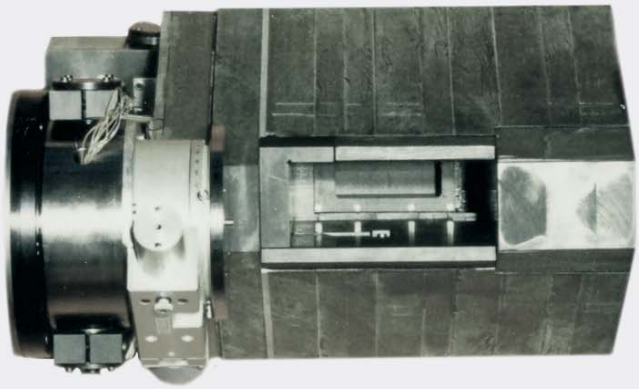
plastim St 1000® Wear Indicator (DIN16972 TG2)

Standard colour(s): green / white
Special colour(s): red / white
Fields of application:
- bulk transport
- screw conveyor
- funnel
- container
- channels

Properties:
- high wear resistance
- high bending- and impact strength
- temp. range - 200 / + 80 °C
- thermic deformation before installation is possible

Material designation	St 1000® Wear Indicator		
Raw material	PE-UHMW		
Material colour(s)	green / white		
Properties	**Unit**	**Test method**	**Value**
Molecular weight (average molar mass)	g/mol		~ 5 Mio.
Mechanical properties			
Density	g/cm³	DIN 53479	0,956
Tensile strength	N/mm²	DIN 53455	27
Shore D hardness, 15s - Value	Skala D	DIN 53505	64 – 67
Ball indentation hardness, 30s - Value	N/mm²	DIN ISO 2039 Part 1	38
Ultimate tensile strength	N/mm²	DIN 53455	40,5
Elongation at break	%	DIN ISO / R 527	400
Modulus of elasticity	N/mm²	DIN 53457	700
Notched impact strength (Sharpy)	kJ/m²	DIN 53453	> 80 – 140
Abrasion	%	Sand slurry method	100
Coefficient of friction	µ		0,1 – 0,2
Thermal properties			
Dimensional stability under heat	°C	DIN 53461	47
Vicat softening temperature	°C	DIN 53460	79
Crystalline melting range	°C	DTA	130 – 135
Thermal conductivity at 23 °C	W/ (K * m)	DIN 52612	0,42
Specific heat at 23 °C	kJ/ (K * Kg)		1,8
Coefficient of linear expansion at 23 °C	10^{-5} * (1/K)	DIN 53752	20
Fire behaviour		UL 94	HB
Application temperature (min.)	°C		- 200
Application temperature (constant)	°C		+ 80
Moisture absorption	%		< 0,01
Electrical properties			
Specific volume resistance	Ω * cm	DIN 53482	> 10^{15}
Surface resistance	Ω	DIN 53482	> 10^{14}
Dielectric strength	kV/mm	DIN 53481	45
Dielectric constant at 50 Hz		DIN 53485	1,9

physiologically harmless according to EU-directive 2002/72/EG,
FDA-directive 21CFR177.1520 and 21CFR178.3297



plastim St 1000® BOR Neutrolen (DIN 16972 TG2)

Standard colour(s): granite grey (similar to RAL 7026)
Special colour(s): –
Fields of application: • nuclear industry

Properties:
- high mechanical load bearing capacity
- extreme hardness
- high absorption of thermal neutrons
- high chemical resistance

Material designation	St 1000® BOR Neutrolen		
Raw material	PE-UHMW		
Material colour(s)	granite grey		
Properties	**Unit**	**Test method**	**Value**
Molecular weight (average molar mass)	g/mol		~ 5 Mio.
Mechanical properties			
Density	g/cm³	DIN 53479	1,33
Tensile strength	N/mm²	DIN 53455	> 25
Shore D hardness, 15s - Value	Skala D	DIN 53505	60 – 65
Ball indentation hardness, 30s - Value	N/mm²	DIN ISO 2039 Part 1	30 – 35
Ultimate tensile strength	N/mm²	DIN 53455	
Elongation at break	%	DIN ISO / R 527	≥ 200
Modulus of elasticity	N/mm²	DIN 53457	> 850
Notched impact strength (Sharpy)	kJ/m²	DIN 53453	≥ 120
Abrasion	%	Sand slurry method	100
Coefficient of friction	μ		~ 0,3
Thermal properties			
Dimensional stability under heat	°C	DIN 53461	
Vicat softening temperature	°C	DIN 53460	80
Crystalline melting range	°C	DTA	135 – 138
Thermal conductivity at 23 °C	W/ (K * m)	DIN 52612	~ 0,4
Specific heat at 23 °C	kJ/ (K * Kg)		
Coefficient of linear expansion at 23 °C	10^{-5} * (1/K)	DIN 53752	20
Fire behaviour		UL 94	HB
Application temperature (min.)	°C		- 200
Application temperature (constant)	°C		+ 85
Moisture absorption	%		< 0,01
Electrical properties			
Specific volume resistance	Ω * cm	DIN 53482	> 10^{12}
Surface resistance	Ω	DIN 53482	> 10^{12}
Dielectric strength	kV/mm	DIN 53481	45
Dielectric constant at 50 Hz		DIN 53485	2,1

plastim St 2011 (DIN 16972 TG1)

Standard colour(s): communal orange (RAL 2011)
Special colour(s): –
Fields of application:
- snow clearing
- piste machining
- rail snow clearing
- ice clearing
- road support
- car fittings

Properties:
- excellent wear resistance and good sliding properties
- high bending- and impact strength
- UV-stabilized

Material designation	St 2011		
Raw material	PE-UHMW		
Material colour(s)	communal orange		
Properties	**Unit**	**Test method**	**Value**
Molecular weight (average molar mass)	g/mol		9,2 Mio.
Mechanical properties			
Density	g/cm³	DIN 53479	0,93
Tensile strength	N/mm²	DIN 53455	27
Shore D hardness, 15s - Value	Skala D	DIN 53505	64 – 67
Ball indentation hardness, 30s - Value	N/mm²	DIN ISO 2039 Part 1	38
Ultimate tensile strength	N/mm²	DIN 53455	40,5
Elongation at break	%	DIN ISO / R 527	400
Modulus of elasticity	N/mm²	DIN 53457	700
Notched impact strength (Sharpy)	kJ/m²	DIN 53453	> 80 – 140
Abrasion	%	Sand slurry method	65
Coefficient of friction	µ		0,1 – 0,2
Thermal properties			
Dimensional stability under heat	°C	DIN 53461	47
Vicat softening temperature	°C	DIN 53460	79
Crystalline melting range	°C	DTA	130 – 135
Thermal conductivity at 23 °C	W/ (K * m)	DIN 52612	0,42
Specific heat at 23 °C	kJ/ (K * Kg)		1,8
Coefficient of linear expansion at 23 °C	10^{-5} * (1/K)	DIN 53752	20
Fire behaviour		UL 94	HB
Application temperature (min.)	°C		- 200
Application temperature (constant)	°C		+ 80
Moisture absorption	%		< 0,01
Electrical properties			
Specific volume resistance	Ω * cm	DIN 53482	> 10^{15}
Surface resistance	Ω	DIN 53482	> 10^{14}
Dielectric strength	kV/mm	DIN 53481	45
Dielectric constant at 50 Hz		DIN 53485	1,9

plastim St 6000® AST (DIN 16972 TG1/TG2)

Standard colour(s): black
Special colour(s): –
Fields of application:
- chemical industry
- mechanical engineering
- transport and conveyor systems
- aircraft industry

Properties:
- antistatic
- excellent wear resistance and sliding properties
- high bending- and impact strength
- maximum cold resistance
- good chemical resistance

Material designation	St 6000® AST		
Raw material	PE-UHMW		
Material colour(s)	black		
Properties	**Unit**	**Test method**	**Value**
Molecular weight (average molar mass)	g/mol		~ 5 - 9,2 Mio.
Mechanical properties			
Density	g/cm³	DIN 53479	0,982
Tensile strength	N/mm²	DIN 53455	25
Shore D hardness, 15s - Value	Skala D	DIN 53505	64 – 70
Ball indentation hardness, 30s - Value	N/mm²	DIN ISO 2039 Part 1	38
Ultimate tensile strength	N/mm²	DIN 53455	36
Elongation at break	%	DIN ISO / R 527	350
Modulus of elasticity	N/mm²	DIN 53457	700
Notched impact strength (Sharpy)	kJ/m²	DIN 53453	> 70 – 130
Abrasion	%	Sand slurry method	~ 80
Coefficient of friction	µ		0,25
Thermal properties			
Dimensional stability under heat	°C	DIN 53461	47
Vicat softening temperature	°C	DIN 53460	79
Crystalline melting range	°C	DTA	130 – 135
Thermal conductivity at 23 °C	W/ (K * m)	DIN 52612	0,42
Specific heat at 23 °C	kJ/ (K * Kg)		1,8
Coefficient of linear expansion at 23 °C	10^{-5} * (1/K)	DIN 53752	20
Fire behaviour		UL 94	HB
Application temperature (min.)	°C		- 200
Application temperature (constant)	°C		+ 80
Moisture absorption	%		< 0,01
Electrical properties			
Specific volume resistance	Ω * cm	DIN 53482	< 10^{9}
Surface resistance	Ω	DIN 53482	< 10^{6}
Dielectric strength	kV/mm	DIN 53481	
Dielectric constant at 50 Hz		DIN 53485	

After consulting also physiologically harmless according to EU-directive 2002/72/EG, FDA-directive 21CFR177.1520 and 21CFR178.3297 = ST 6000® AST (FDA)

plastim St 6000® ELS (DIN16972 TG1)

Standard colour(s): black
Special colour(s): –
Fields of application:
- mechanical engineering
- chemical industry
- power stations
- aerospace industry

Properties:
- electric conductiv
- high bending- and impact strength
- good wear resistance
- good resistance against coldness
- good chemical resistance

Material designation	St 6000® ELS		
Raw material	PE-UHMW		
Material colour(s)	black		
Properties	**Unit**	**Test method**	**Value**
Molecular weight (average molar mass)	g/mol		~ 9,2 Mio.
Mechanical properties			
Density	g/cm³	DIN 53479	0,982
Tensile strength	N/mm²	DIN 53455	25
Shore D hardness, 15s - Value	Skala D	DIN 53505	64 – 70
Ball indentation hardness, 30s - Value	N/mm²	DIN ISO 2039 Part 1	38
Ultimate tensile strength	N/mm²	DIN 53455	36
Elongation at break	%	DIN ISO / R 527	350
Modulus of elasticity	N/mm²	DIN 53457	700
Notched impact strength (Sharpy)	kJ/m²	DIN 53453	> 70 – 130
Abrasion	%	Sand slurry method	~ 110
Coefficient of friction	µ		~ 0,25
Thermal properties			
Dimensional stability under heat	°C	DIN 53461	47
Vicat softening temperature	°C	DIN 53460	79
Crystalline melting range	°C	DTA	130 – 135
Thermal conductivity at 23 °C	W/ (K * m)	DIN 52612	0,42
Specific heat at 23 °C	kJ/ (K * Kg)		1,8
Coefficient of linear expansion at 23 °C	10^{-5} * (1/K)	DIN 53752	20
Fire behaviour		UL 94	HB
Application temperature (min.)	°C		- 200
Application temperature (constant)	°C		+ 80
Moisture absorption	%		< 0,01
Electrical properties			
Specific volume resistance	Ω * cm	DIN 53482	$< 10^{6}$
Surface resistance	Ω	DIN 53482	$< 10^{3}$
Dielectric strength	kV/mm	DIN 53481	
Dielectric constant at 50 Hz		DIN 53485	

plastim St 4000® ATEX (DIN 16972 TG1)

Standard colour(s): black
Special colour(s): –
Fields of application:
- chemical industry
- mechanical engineering
- power stations
- explosion protected equipment
- aircraft industry
- laboratory construction

Properties:
- electrically conductive
- high bending- and impact strength
- highest cold resistance
- good chemical resistance

Material designation	St 4000® ATEX		
Raw material	PE-UHMW		
Material colour(s)	black		
Properties	**Unit**	**Test method**	**Value**
Molecular weight (average molar mass)	g/mol		~ 9,2 Mio.
Mechanical properties			
Density	g/cm³	DIN 53479	0,982
Tensile strength	N/mm²	DIN 53455	25
Shore D hardness, 15s - Value	Skala D	DIN 53505	64 – 70
Ball indentation hardness, 30s - Value	N/mm²	DIN ISO 2039 Part 1	38
Ultimate tensile strength	N/mm²	DIN 53455	36
Elongation at break	%	DIN ISO / R 527	350
Modulus of elasticity	N/mm²	DIN 53457	700
Notched impact strength (Sharpy)	kJ/m²	DIN 53453	> 70 – 130
Abrasion	%	Sand slurry method	~ 110
Coefficient of friction	µ		0,25
Thermal properties			
Dimensional stability under heat	°C	DIN 53461	47
Vicat softening temperature	°C	DIN 53460	79
Crystalline melting range	°C	DTA	130 – 135
Thermal conductivity at 23 °C	W/ (K * m)	DIN 52612	0,42
Specific heat at 23 °C	kJ/ (K * Kg)		1,8
Coefficient of linear expansion at 23 °C	10^{-5} * (1/K)	DIN 53752	20
Fire behaviour		UL 94	HB
Application temperature (min.)	°C		- 200
Application temperature (constant)	°C		+ 80
Moisture absorption	%		< 0,01
Electrical properties			
Specific volume resistance	Ω * cm	DIN 53482	< 10^{6}
Surface resistance	Ω	DIN 53482	< 10^{3}
Dielectric strength	kV/mm	DIN 53481	
Dielectric constant at 50 Hz		DIN 53485	

Test certificate „TÜV Nord YEX 550794“

plastim St 6000® GB (DIN 16972 TG2)

Standard colour(s): grey-blue
Special colour(s): –
Fields of application:
- chemical industry
- food industry
- mechanical engineering
- transport- and conveyor systems

Properties:
- highest wear resistance and enhanced sliding properties
- high bending- and impact strength
- no moisture absorption
- high chemical resistance

Material designation	St 6000® GB		
Raw material	PE-UHMW		
Material colour(s)	grey-blue		
Properties	**Unit**	**Test method**	**Value**
Molecular weight (average molar mass)	g/mol		~ 6 Mio.
Mechanical properties			
Density	g/cm³	DIN 53479	0,959
Tensile strength	N/mm²	DIN 53455	
Shore D hardness, 15s - Value	Skala D	DIN 53505	66
Ball indentation hardness, 30s - Value	N/mm²	DIN ISO 2039 Part 1	43
Ultimate tensile strength	N/mm²	DIN 53455	
Elongation at break	%	DIN ISO / R 527	600
Modulus of elasticity	N/mm²	DIN 53457	
Notched impact strength (Sharpy)	kJ/m²	DIN 53453	o.Br.
Abrasion	%	Sand slurry method	85
Coefficient of friction	µ		
Thermal properties			
Dimensional stability under heat	°C	DIN 53461	
Vicat softening temperature	°C	DIN 53460	
Crystalline melting range	°C	DTA	135 – 138
Thermal conductivity at 23 °C	W/ (K * m)	DIN 52612	
Specific heat at 23 °C	kJ/ (K * Kg)		
Coefficient of linear expansion at 23 °C	10^{-5} * (1/K)	DIN 53752	18
Fire behaviour		UL 94	HB
Application temperature (min.)	°C		- 269
Application temperature (constant)	°C		+ 80
Moisture absorption	%		< 0,01
Electrical properties			
Specific volume resistance	Ω * cm	DIN 53482	$< 10^{16}$
Surface resistance	Ω	DIN 53482	$< 10^{14}$
Dielectric strength	kV/mm	DIN 53481	90
Dielectric constant at 50 Hz		DIN 53485	

plastim St 9100 Oil (DIN 16972 TG1)

Standard colour(s): black
Special colour(s): saphire blue (RAL 5003)
purple violet (RAL 4007)
pallid green (RAL 6021)
Fields of application:
- transport and conveyor systems

Properties:
- high mechanical load
- lowest wear- and excellent anti-friction properties
- lowest abrasion values
- high bending- and impact strength

Material designation	St 9100 Oil		
Raw material	PE-UHMW		
Material colour(s)	black		
Properties	**Unit**	**Test method**	**Value**
Molecular weight (average molar mass)	g/mol		~ 9 Mio.
Mechanical properties			
Density	g/cm³	DIN 53479	0,956
Tensile strength	N/mm²	DIN 53455	22
Shore D hardness, 15s - Value	Skala D	DIN 53505	60 – 65
Ball indentation hardness, 30s - Value	N/mm²	DIN ISO 2039 Part 1	30 – 35
Ultimate tensile strength	N/mm²	DIN 53455	41
Elongation at break	%	DIN ISO / R 527	≥ 200
Modulus of elasticity	N/mm²	DIN 53457	700
Notched impact strength (Sharpy)	kJ/m²	DIN 53453	≥ 80
Abrasion	%	Sand slurry method	80
Coefficient of friction	µ		0,08
Thermal properties			
Dimensional stability under heat	°C	DIN 53461	47
Vicat softening temperature	°C	DIN 53460	80
Crystalline melting range	°C	DTA	135 – 138
Thermal conductivity at 23 °C	W/ (K * m)	DIN 52612	~ 0,4
Specific heat at 23 °C	kJ/ (K * Kg)		1,8
Coefficient of linear expansion at 23 °C	10^{-5} * (1/K)	DIN 53752	20
Fire behaviour		UL 94	HB
Application temperature (min.)	°C		- 200
Application temperature (constant)	°C		+ 80
Moisture absorption	%		< 0,01
Electrical properties			
Specific volume resistance	Ω * cm	DIN 53482	> 10^{15}
Surface resistance	Ω	DIN 53482	> 10^{13}
Dielectric strength	kV/mm	DIN 53481	45
Dielectric constant at 50 Hz		DIN 53485	

physiologically harmless according to EU-directive 2002/72/EG,
FDA-directive 21CFR177.1520 and 21CFR178.3297

plastim St 9100 Oil + (DIN 16972 TG1)

Standard colour(s): grey
Special colour(s): saphire blue (RAL 5003)
purple violet (RAL 4007)
pale green (RAL 6021)
Fields of application: • transport- and conveyor systems

Properties: • excellent wear resistance
• excellent noise reduction
• physiologically harmless

Material designation	St 9100 Oil +		
Raw material	PE-UHMW		
Material colour(s)	grey		
Properties	**Unit**	**Test method**	**Value**
Molecular weight (average molar mass)	g/mol		~ 9,2 Mio.
Mechanical properties			
Density	g/cm³	DIN 53479	0,93
Tensile strength	N/mm²	DIN 53455	23
Shore D hardness, 15s - Value	Skala D	DIN 53505	60 – 65
Ball indentation hardness, 30s - Value	N/mm²	DIN ISO 2039 Part 1	30 – 35
Ultimate tensile strength	N/mm²	DIN 53455	35
Elongation at break	%	DIN ISO / R 527	≥ 200
Modulus of elasticity	N/mm²	DIN 53457	700
Notched impact strength (Sharpy)	kJ/m²	DIN 53453	≥ 80
Abrasion	%	Sand slurry method	75
Coefficient of friction	μ		0,09
Thermal properties			
Dimensional stability under heat	°C	DIN 53461	47
Vicat softening temperature	°C	DIN 53460	80
Crystalline melting range	°C	DTA	135 – 138
Thermal conductivity at 23 °C	W/ (K * m)	DIN 52612	~ 0,4
Specific heat at 23 °C	kJ/ (K * Kg)		1,8
Coefficient of linear expansion at 23 °C	10^{-5} * (1/K)	DIN 53752	20
Fire behaviour		UL 94	HB
Application temperature (min.)	°C		- 200
Application temperature (constant)	°C		+ 80
Moisture absorption	%		< 0,01
Electrical properties			
Specific volume resistance	Ω * cm	DIN 53482	≤ 10^{15}
Surface resistance	Ω	DIN 53482	≤ 10^{13}
Dielectric strength	kV/mm	DIN 53481	45
Dielectric constant at 50 Hz		DIN 53485	

physiologically harmless according to EU-directive 2002/72/EG,
FDA-directive 21CFR177.1520 and 21CFR178.3297

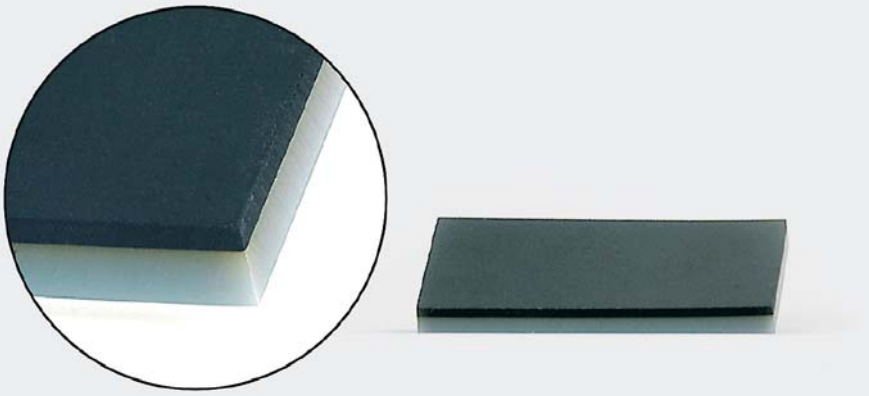
plastim US 9200® (DIN 16972 TG1)

Standard colour(s): dusty grey (RAL 7037)
Special colour(s): –
Fields of application:
- food industry
- mechanical engineering
- transport and conveyor systems
- bottling industry

Properties:
- excellent wear resistance and good sliding properties
- high bending- and impact strength

Material designation	US 9200®		
Raw material	PE-UHMW		
Material colour(s)	dusty grey		
Properties	**Unit**	**Test method**	**Value**
Molecular weight (average molar mass)	g/mol		~ 9,2 Mio.
Mechanical properties			
Density	g/cm³	DIN 53479	0,952
Tensile strength	N/mm²	DIN 53455	18,4
Shore D hardness, 15s - Value	Skala D	DIN 53505	65
Ball indentation hardness, 30s - Value	N/mm²	DIN ISO 2039 Part 1	27,4
Ultimate tensile strength	N/mm²	DIN 53455	
Elongation at break	%	DIN ISO / R 527	> 360
Modulus of elasticity	N/mm²	DIN 53457	700
Notched impact strength (Sharpy)	kJ/m²	DIN 53453	≥ 70
Abrasion	%	Sand slurry method	85
Coefficient of friction	µ		0,04
Thermal properties			
Dimensional stability under heat	°C	DIN 53461	47
Vicat softening temperature	°C	DIN 53460	79
Crystalline melting range	°C	DTA	130 – 135
Thermal conductivity at 23 °C	W/ (K * m)	DIN 52612	0,42
Specific heat at 23 °C	kJ/ (K * Kg)		1,8
Coefficient of linear expansion at 23 °C	10^{-5} * (1/K)	DIN 53752	20
Fire behaviour		UL 94	HB
Application temperature (min.)	°C		- 200
Application temperature (constant)	°C		+ 80
Moisture absorption	%		< 0,01
Electrical properties			
Specific volume resistance	Ω * cm	DIN 53482	
Surface resistance	Ω	DIN 53482	
Dielectric strength	kV/mm	DIN 53481	
Dielectric constant at 50 Hz		DIN 53485	

physiologically harmless according to EU-directive 2002/72/EG,
FDA-directive 21CFR177.1520 and 21CFR178.3297



plastim St 6000® protect (DIN 16972 TG1)

Standard colour(s): grey-blue
Special colour(s): –
Fields of application:
- transport technology
- coal-fired power stations
- mining
- lining

Properties:
- properties like St 1000®
- good noise insulation
- antiadhesive performance
- high work absorption for shock- and impact demands

Material designation	St 6000® protect		
Raw material	PE-UHMW		
Material colour(s)	grey-blue		
Properties	**Unit**	**Test method**	**Value**
Molecular weight (average molar mass)	g/mol		~ 9,2 Mio
Mechanical properties			
Density	g/cm³	DIN 53479	0,982
Tensile strength	N/mm²	DIN 53455	700
Shore D hardness, 15s - Value	Skala D	DIN 53505	60 – 65
Ball indentation hardness, 30s - Value	N/mm²	DIN ISO 2039 Part 1	30 – 35
Ultimate tensile strength	N/mm²	DIN 53455	
Elongation at break	%	DIN ISO / R 527	≥ 350
Modulus of elasticity	N/mm²	DIN 53457	
Notched impact strength (Sharpy)	kJ/m²	DIN 53453	≥ 25
Abrasion	%	Sand slurry method	
Coefficient of friction	µ		
Thermal properties			
Dimensional stability under heat	°C	DIN 53461	
Vicat softening temperature	°C	DIN 53460	80
Crystalline melting range	°C	DTA	135 – 138
Thermal conductivity at 23 °C	W/ (K * m)	DIN 52612	~ 0,4
Specific heat at 23 °C	kJ/ (K * Kg)		
Coefficient of linear expansion at 23 °C	10^{-5} * (1/K)	DIN 53752	~ 20
Fire behaviour		UL 94	HB
Application temperature (min.)	°C		
Application temperature (constant)	°C		+ 80
Moisture absorption	%		< 0,01
Electrical properties			
Specific volume resistance	Ω * cm	DIN 53482	~ < 10^{15}
Surface resistance	Ω	DIN 53482	~ < 10^{15}
Dielectric strength	kV/mm	DIN 53481	45
Dielectric constant at 50 Hz		DIN 53485	

plastim St 7000® AF (DIN 16972 TG1)

Standard colour(s): black
Special colour(s): –
Fields of application:
- traffic engineering
- building industry
- mechanical engineering

Properties:
- flame retardant
- non-halogen
- uv-stabilized
- antistatic
- wear resistant

Material designation	St 7000® AF		
Raw material	PE-UHMW		
Material colour(s)	black		
Properties	**Unit**	**Test method**	**Value**
Molecular weight (average molar mass)	g/mol		~ 5 Mio.
Mechanical properties			
Density	g/cm³	DIN 53479	1,03
Tensile strength	N/mm²	DIN 53455	
Shore D hardness, 15s - Value	Skala D	DIN 53505	60 – 65
Ball indentation hardness, 30s - Value	N/mm²	DIN ISO 2039 Part 1	30 – 35
Ultimate tensile strength	N/mm²	DIN 53455	
Elongation at break	%	DIN ISO / R 527	≥ 150
Modulus of elasticity	N/mm²	DIN 53457	700
Notched impact strength (Sharpy)	kJ/m²	DIN 53453	80
Abrasion	%	Sand slurry method	130
Coefficient of friction	µ		~ 0,25
Thermal properties			
Dimensional stability under heat	°C	DIN 53461	
Vicat softening temperature	°C	DIN 53460	80
Crystalline melting range	°C	DTA	135 – 138
Thermal conductivity at 23 °C	W/ (K * m)	DIN 52612	~ 0,4
Specific heat at 23 °C	kJ/ (K * Kg)		~ 0,4
Coefficient of linear expansion at 23 °C	10^{-5} * (1/K)	DIN 53752	~ 20
Fire behaviour		UL 94	V - 0
Application temperature (min.)	°C		- 200
Application temperature (constant)	°C		+ 80
Moisture absorption	%		< 0,01
Electrical properties			
Specific volume resistance	Ω * cm	DIN 53482	> 10^{2}
Surface resistance	Ω	DIN 53482	> 10^{3}
Dielectric strength	kV/mm	DIN 53481	
Dielectric constant at 50 Hz		DIN 53485	

DIN 5510-2, DIN 4102: category B1

plastim St 7000® AMB (DIN 16972 TG1/TG2)

Standard colour(s): natural
Special colour(s): –
Fields of application:
- medical technique
- mechanical engineering
- food industry
- laboratory construction

Properties:
- antimicrobial equipment
- high wear resistance
- high bending and impact strength
- high resistance to cold

Material designation	St 7000® AMB		
Raw material	PE-UHMW		
Material colour(s)	natural		
Properties	**Unit**	**Test method**	**Value**
Molecular weight (average molar mass)	g/mol		~ 5 - 9,2 Mio.
Mechanical properties			
Density	g/cm³	DIN 53479	≥ 0,960
Tensile strength	N/mm²	DIN 53455	
Shore D hardness, 15s - Value	Skala D	DIN 53505	60 – 65
Ball indentation hardness, 30s - Value	N/mm²	DIN ISO 2039 Part 1	30 – 35
Ultimate tensile strength	N/mm²	DIN 53455	
Elongation at break	%	DIN ISO / R 527	≥ 300
Modulus of elasticity	N/mm²	DIN 53457	
Notched impact strength (Sharpy)	kJ/m²	DIN 53453	≥ 80
Abrasion	%	Sand slurry method	100
Coefficient of friction	µ		
Thermal properties			
Dimensional stability under heat	°C	DIN 53461	135 - 138
Vicat softening temperature	°C	DIN 53460	80
Crystalline melting range	°C	DTA	
Thermal conductivity at 23 °C	W/ (K * m)	DIN 52612	~ 0,4
Specific heat at 23 °C	kJ/ (K * Kg)		
Coefficient of linear expansion at 23 °C	10^{-5} * (1/K)	DIN 53752	20
Fire behaviour		UL 94	HB
Application temperature (min.)	°C		- 200
Application temperature (constant)	°C		+ 80
Moisture absorption	%		< 0,01
Electrical properties			
Specific volume resistance	Ω * cm	DIN 53482	> 10^{12}
Surface resistance	Ω	DIN 53482	> 10^{12}
Dielectric strength	kV/mm	DIN 53481	45
Dielectric constant at 50 Hz		DIN 53485	2,1

physiologically harmless according to EU-directive 2002/72/EG,
FDA-directive 21CFR177.1520 and 21CFR178.3297

plastim St 7000® EHT (DIN 16972 TG1)

Standard colour(s): white
(similar to RAL 9003)

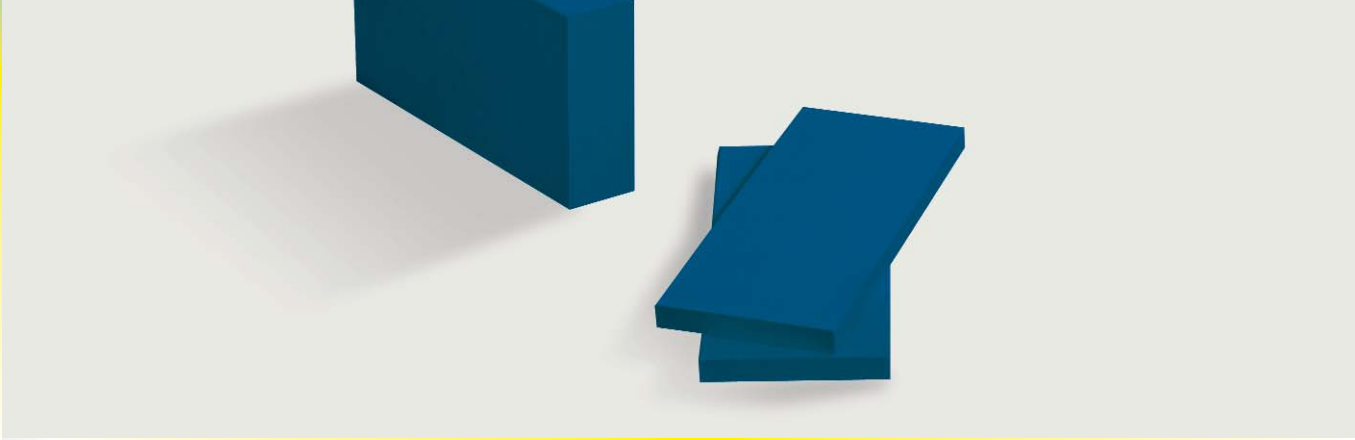
Special colour(s): –

Fields of application:
- food- and pharmaceutical industry
- bakery machines
- mechanical engineering
- chemical industry

Properties:
- higher temperature resistance
- oxidation inhibitory
- high wear resistance
- higher durability at higher temperature [+ 100 °C up to + 135 °C, according to load]
- high chemical resistance

Material designation	St 7000® EHT		
Raw material	PE-UHMW		
Material colour(s)	white		
Properties	**Unit**	**Test method**	**Value**
Molecular weight (average molar mass)	g/mol		~ 9,2 Mio.
Mechanical properties			
Density	g/cm³	DIN 53479	0,962
Tensile strength	N/mm²	DIN 53455	23
Shore D hardness, 15s - Value	Skala D	DIN 53505	60 – 65
Ball indentation hardness, 30s - Value	N/mm²	DIN ISO 2039 Part 1	30 – 35
Ultimate tensile strength	N/mm²	DIN 53455	35
Elongation at break	%	DIN ISO / R 527	≥ 350
Modulus of elasticity	N/mm²	DIN 53457	700
Notched impact strength (Sharpy)	kJ/m²	DIN 53453	≥ 100
Abrasion	%	Sand slurry method	80
Coefficient of friction	µ		0,12
Thermal properties			
Dimensional stability under heat	°C	DIN 53461	47
Vicat softening temperature	°C	DIN 53460	80
Crystalline melting range	°C	DTA	130 – 135
Thermal conductivity at 23 °C	W/ (K * m)	DIN 52612	~ 0,4
Specific heat at 23 °C	kJ/ (K * Kg)		1,8
Coefficient of linear expansion at 23 °C	10^{-5} * (1/K)	DIN 53752	9
Fire behaviour		UL 94	HB
Application temperature (min.)	°C		- 200
Application temperature (constant)	°C		+100
Moisture absorption	%		< 0,01
Electrical properties			
Specific volume resistance	Ω * cm	DIN 53482	< 10^{15}
Surface resistance	Ω	DIN 53482	< 10^{13}
Dielectric strength	kV/mm	DIN 53481	45
Dielectric constant at 50 Hz		DIN 53485	2,1

physiologically harmless according to EU-directive 2002/72/EG,
FDA-Richtlinien 21CFR177.1520, 21 CFR178.2010, 21CFR178.3297



plastim St 8800 (DIN16972 TG1)

Standard colour(s): saphire blue (similar to RAL 5003)
Special colour(s): –
Fields of application: • lining

Properties: • excellent wear resistance
• good sliding properties

Material designation	St 8800		
Raw material	PE-UHMW		
Material colour(s)	saphire blue		
Properties	**Unit**	**Test method**	**Value**
Molecular weight (average molar mass)	g/mol		9,2 Mio.
Mechanical properties			
Density	g/cm³	DIN 53479	0,960
Tensile strength	N/mm²	DIN 53455	23
Shore D hardness, 15s - Value	Skala D	DIN 53505	64 – 69
Ball indentation hardness, 30s - Value	N/mm²	DIN ISO 2039 Part 1	48
Ultimate tensile strength	N/mm²	DIN 53455	> 40
Elongation at break	%	DIN ISO / R 527	350
Modulus of elasticity	N/mm²	DIN 53457	~ 650
Notched impact strength (Sharpy)	kJ/m²	DIN 53453	> 80 – 105
Abrasion	%	Sand slurry method	~ 70
Coefficient of friction	µ		~ 0,1
Thermal properties			
Dimensional stability under heat	°C	DIN 53461	47
Vicat softening temperature	°C	DIN 53460	79
Crystalline melting range	°C	DTA	130 – 135
Thermal conductivity at 23 °C	W/ (K * m)	DIN 52612	~ 0,6
Specific heat at 23 °C	kJ/ (K * Kg)		1,8
Coefficient of linear expansion at 23 °C	10^{-5} * (1/K)	DIN 53752	10
Fire behaviour		UL 94	HB
Application temperature (min.)	°C		- 260
Application temperature (constant)	°C		+ 80
Moisture absorption	%		< 0,01
Electrical properties			
Specific volume resistance	Ω * cm	DIN 53482	
Surface resistance	Ω	DIN 53482	
Dielectric strength	kV/mm	DIN 53481	45
Dielectric constant at 50 Hz		DIN 53485	

plastim St 9000 MOS² (DIN 16972 TG1)

Standard colour(s): anthracite (similar to RAL 7016)
Special colour(s): –
Fields of application:
- paper industry
- mechanical engineering
- transport and conveyor systems

Properties:
- high mechanical load bearing capacity
- best wear resistance and sliding properties
- lowest abrasion values
- high bending- and impact strength
- high chemical resistance

Material designation	St 9000 MOS²		
Raw material	PE-UHMW		
Material colour(s)	anthracite		
Properties	**Unit**	**Test method**	**Value**
Molecular weight (average molar mass)	g/mol		~ 9,2 Mio.
Mechanical properties			
Density	g/cm³	DIN 53479	0,961
Tensile strength	N/mm²	DIN 53455	21
Shore D hardness, 15s - Value	Skala D	DIN 53505	68
Ball indentation hardness, 30s - Value	N/mm²	DIN ISO 2039 Part 1	42
Ultimate tensile strength	N/mm²	DIN 53455	33
Elongation at break	%	DIN ISO / R 527	360
Modulus of elasticity	N/mm²	DIN 53457	
Notched impact strength (Sharpy)	kJ/m²	DIN 53453	o.Br.
Abrasion	%	Sand slurry method	~ 70
Coefficient of friction	µ		~ 0,08
Thermal properties			
Dimensional stability under heat	°C	DIN 53461	
Vicat softening temperature	°C	DIN 53460	
Crystalline melting range	°C	DTA	
Thermal conductivity at 23 °C	W/ (K * m)	DIN 52612	
Specific heat at 23 °C	kJ/ (K * Kg)		
Coefficient of linear expansion at 23 °C	10^{-5} * (1/K)	DIN 53752	17
Fire behaviour		UL 94	HB
Application temperature (min.)	°C		- 269
Application temperature (constant)	°C		+ 80
Moisture absorption	%		< 0,01
Electrical properties			
Specific volume resistance	Ω * cm	DIN 53482	> 10^{16}
Surface resistance	Ω	DIN 53482	> 10^{13}
Dielectric strength	kV/mm	DIN 53481	90
Dielectric constant at 50 Hz		DIN 53485	

plastim Ceradur (DIN 16972 TG1)

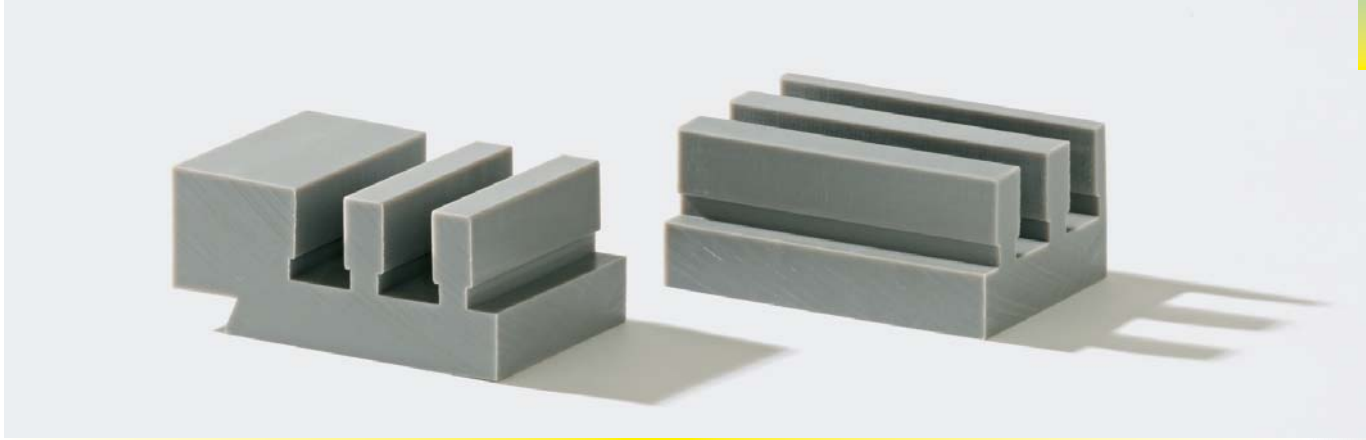
Standard colour(s): yellow-green (RAL 1027)
traffic red (RAL 3020)
black

Special colour(s): –

Fields of application:
- paper industry
- mechanical engineering
- transport- and conveyor systems
- agriculture
- filter industry

Properties:
- high mechanical loadbearing capacity
- extremely low wear and good sliding properties
- high bending- and impact strength
- good dry running conditions
- low abrasion on filter

Material designation	Ceradur		
Raw material	PE-UHMW		
Material colour(s)	yellow-green, traffic red		
Properties	**Unit**	**Test method**	**Value**
Molecular weight (average molar mass)	g/mol		~ 9,2 Mio.
Mechanical properties			
Density	g/cm³	DIN 53479	1,007
Tensile strength	N/mm²	DIN 53455	23
Shore D hardness, 15s - Value	Skala D	DIN 53505	64 – 69
Ball indentation hardness, 30s - Value	N/mm²	DIN ISO 2039 Part 1	47 – 48
Ultimate tensile strength	N/mm²	DIN 53455	35
Elongation at break	%	DIN ISO / R 527	340 – 350
Modulus of elasticity	N/mm²	DIN 53457	~ 650 – 700
Notched impact strength (Sharpy)	kJ/m²	DIN 53453	> 80 – 110
Abrasion	%	Sand slurry method	~ 75 – 85
Coefficient of friction	µ		~ 0,25
Thermal properties			
Dimensional stability under heat	°C	DIN 53461	47
Vicat softening temperature	°C	DIN 53460	79
Crystalline melting range	°C	DTA	130 – 135
Thermal conductivity at 23 °C	W/ (K * m)	DIN 52612	0,42
Specific heat at 23 °C	kJ/ (K * Kg)		1,8
Coefficient of linear expansion at 23 °C	10^{-5} * (1/K)	DIN 53752	~ 15
Fire behaviour		UL 94	HB
Application temperature (min.)	°C		- 200
Application temperature (constant)	°C		+ 80
Moisture absorption	%		< 0,01
Electrical properties			
Specific volume resistance	Ω * cm	DIN 53482	
Surface resistance	Ω	DIN 53482	
Dielectric strength	kV/mm	DIN 53481	45
Dielectric constant at 50 Hz		DIN 53485	

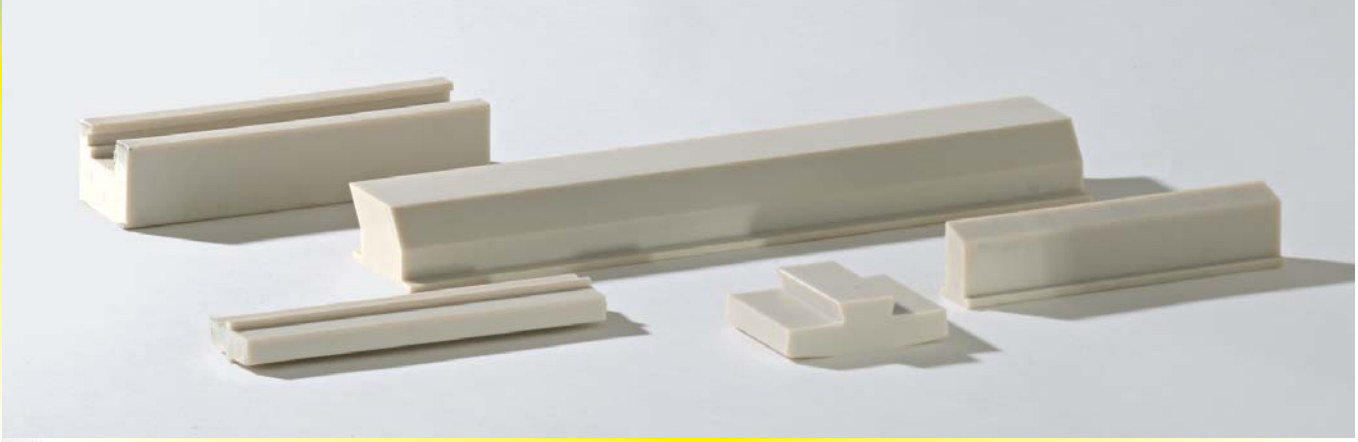


plastim CeradurXL (DIN 16972 TG1)

Standard colour(s): grey (RAL 7037)
Special colour(s): –
Fields of application: • paper industry

Properties: • high wear resistance
• good dry running conditions
• low abrasion on wire

Material designation	CeradurXL		
Raw material	PE-UHMW		
Material colour(s)	grey		
Properties	**Unit**	**Test method**	**Value**
Molecular weight (average molar mass)	g/mol		~ 9,2 Mio.
Mechanical properties			
Density	g/cm³	DIN 53479	1,008
Tensile strength	N/mm²	DIN 53455	23
Shore D hardness, 15s - Value	Skala D	DIN 53505	64 – 69
Ball indentation hardness, 30s - Value	N/mm²	DIN ISO 2039 Part 1	48
Ultimate tensile strength	N/mm²	DIN 53455	35
Elongation at break	%	DIN ISO / R 527	350
Modulus of elasticity	N/mm²	DIN 53457	~ 650
Notched impact strength (Sharpy)	kJ/m²	DIN 53453	> 80 – 105
Abrasion	%	Sand slurry method	~ 75
Coefficient of friction	µ		~ 0,2
Thermal properties			
Dimensional stability under heat	°C	DIN 53461	47
Vicat softening temperature	°C	DIN 53460	79
Crystalline melting range	°C	DTA	130 – 135
Thermal conductivity at 23 °C	W/ (K * m)	DIN 52612	~ 0,60
Specific heat at 23 °C	kJ/ (K * Kg)		1,8
Coefficient of linear expansion at 23 °C	10^{-5} * (1/K)	DIN 53752	9
Fire behaviour		UL 94	HB
Application temperature (min.)	°C		- 200
Application temperature (constant)	°C		+ 80
Moisture absorption	%		< 0,01
Electrical properties			
Specific volume resistance	Ω * cm	DIN 53482	
Surface resistance	Ω	DIN 53482	
Dielectric strength	kV/mm	DIN 53481	45
Dielectric constant at 50 Hz		DIN 53485	



plastim CeramX® (DIN 16972 TG1)

Standard colour(s): oyster white
Special colour(s): –
Fields of application:
- components in the wet area of paper machines (forming boards, foils and suction box covers)
- components in bottling plants (e.g. rollers)

Properties:
- good gliding and abrasion properties
- low deformation
- improved temperature behaviour (at long term up to 105°)
- excellent surfacial and optical characteristics

Material designation	CeramX®		
Raw material	PE-UHMW		
Material colour(s)	oyster white		
Properties	**Unit**	**Test method**	**Value**
Molecular weight (average molar mass)	g/mol		~ 9,2 Mio.
Mechanical properties			
Density	g/cm³	DIN 53479	1,210
Tensile strength	N/mm²	DIN 53455	≥ 20
Shore D hardness, 15s - Value	Skala D	DIN 53505	67 – 70
Ball indentation hardness, 30s - Value	N/mm²	DIN ISO 2039 Part 1	38
Ultimate tensile strength	N/mm²	DIN 53455	35
Elongation at break	%	DIN ISO / R 527	> 120
Modulus of elasticity	N/mm²	DIN 53457	~ 680
Notched impact strength (Sharpy)	kJ/m²	DIN 53453	≥ 130
Abrasion	%	Sand slurry method	~ 65
Coefficient of friction	µ		~ 0,15
Thermal properties			
Dimensional stability under heat	°C	DIN 53461	47
Vicat softening temperature	°C	DIN 53460	79
Crystalline melting range	°C	DTA	
Thermal conductivity at 23 °C	W/ (K * m)	DIN 52612	~ 0,5
Specific heat at 23 °C	kJ/ (K * Kg)		
Coefficient of linear expansion at 23 °C	10^{-5} * (1/K)	DIN 53752	8
Fire behaviour		UL 94	HB
Application temperature (min.)	°C		- 200
Application temperature (constant)	°C		+ 105
Moisture absorption	%		< 0,01
Electrical properties			
Specific volume resistance	Ω * cm	DIN 53482	$< 10^{6}$
Surface resistance	Ω	DIN 53482	$< 10^{9}$
Dielectric strength	kV/mm	DIN 53481	45
Dielectric constant at 50 Hz		DIN 53485	

physiologically harmless according to EU-directive 2002/72/EG,
FDA-directive 21CFR177.1520 and 21CFR178.3297

plastim PS 1000® (DIN 16972 TG1)

Standard colour(s): black
Special colour(s): –
Fields of application:
- paper industry
- mechanical engineering
- transport and conveyor systems
- agriculture
- filter industry

Properties:
- high mechanical load bearing capacity
- extremely low wear and good sliding properties
- high bending- and impact strength

Material designation	PS 1000®		
Raw material	PE-UHMW		
Material colour(s)	black		
Properties	**Unit**	**Test method**	**Value**
Molecular weight (average molar mass)	g/mol		~ 9,2 Mio.
Mechanical properties			
Density	g/cm³	DIN 53479	0,971
Tensile strength	N/mm²	DIN 53455	22
Shore D hardness, 15s - Value	Skala D	DIN 53505	64 – 68
Ball indentation hardness, 30s - Value	N/mm²	DIN ISO 2039 Part 1	46
Ultimate tensile strength	N/mm²	DIN 53455	41
Elongation at break	%	DIN ISO / R 527	330
Modulus of elasticity	N/mm²	DIN 53457	700
Notched impact strength (Sharpy)	kJ/m²	DIN 53453	> 80 – 130
Abrasion	%	Sand slurry method	~ 85
Coefficient of friction	µ		0,25
Thermal properties			
Dimensional stability under heat	°C	DIN 53461	47
Vicat softening temperature	°C	DIN 53460	79
Crystalline melting range	°C	DTA	130 – 135
Thermal conductivity at 23 °C	W/ (K * m)	DIN 52612	0,42
Specific heat at 23 °C	kJ/ (K * Kg)		1,8
Coefficient of linear expansion at 23 °C	10^{-5} * (1/K)	DIN 53752	20
Fire behaviour		UL 94	HB
Application temperature (min.)	°C		- 200
Application temperature (constant)	°C		+ 80
Moisture absorption	%		< 0,01
Electrical properties			
Specific volume resistance	Ω * cm	DIN 53482	
Surface resistance	Ω	DIN 53482	
Dielectric strength	kV/mm	DIN 53481	45
Dielectric constant at 50 Hz		DIN 53485	

plastim PS 4190® (DIN 16972 TG1)

Standard colour(s): anthracite
Special colour(s): –
Fields of application: • paper industry

Properties: • high wear resistance
• low abrasion on wire
• high bending- and impact strength
• antistatic

Material designation	PS 4190®		
Raw material	PE-UHMW		
Material colour(s)	anthracite		
Properties	**Unit**	**Test method**	**Value**
Molecular weight (average molar mass)	g/mol		~ 9,2 Mio.
Mechanical properties			
Density	g/cm³	DIN 53479	0,99
Tensile strength	N/mm²	DIN 53455	23
Shore D hardness, 15s - Value	Skala D	DIN 53505	68
Ball indentation hardness, 30s - Value	N/mm²	DIN ISO 2039 Part 1	47
Ultimate tensile strength	N/mm²	DIN 53455	35
Elongation at break	%	DIN ISO / R 527	350
Modulus of elasticity	N/mm²	DIN 53457	700
Notched impact strength (Sharpy)	kJ/m²	DIN 53453	> 70 – 120
Abrasion	%	Sand slurry method	~ 65
Coefficient of friction	µ		~ 0,2
Thermal properties			
Dimensional stability under heat	°C	DIN 53461	47
Vicat softening temperature	°C	DIN 53460	79
Crystalline melting range	°C	DTA	130 – 135
Thermal conductivity at 23 °C	W/ (K * m)	DIN 52612	0,42
Specific heat at 23 °C	kJ/ (K * Kg)		1,8
Coefficient of linear expansion at 23 °C	10^{-5} * (1/K)	DIN 53752	10
Fire behaviour		UL 94	HB
Application temperature (min.)	°C		-100
Application temperature (constant)	°C		+ 85
Moisture absorption	%		< 0,01
Electrical properties			
Specific volume resistance	Ω * cm	DIN 53482	
Surface resistance	Ω	DIN 53482	
Dielectric strength	kV/mm	DIN 53481	~ 50
Dielectric constant at 50 Hz		DIN 53485	

plastim PP

Standard colour(s): natural, grey
Special colour(s): –
Fields of application:
- chemical machines and container construction
- laboratory construction
- food industry

Properties:
- permanent heat stability
- high chemical resistance
- high dimensional stability (in comparison to extruded Material)

Material designation	PP		
Raw material	Polypropylene, homopolymer (pressed)		
Material colour(s)	natural, grey		
Properties	**Unit**	**Test method**	**Value**
Molecular weight (average molar mass)	g/mol		
Mechanical properties			
Density	g/cm³	DIN 53479	0,91
Tensile strength	N/mm²	DIN 53455	
Shore D hardness, 15s - Value	Skala D	DIN 53505	72
Ball indentation hardness, 30s - Value	N/mm²	DIN ISO 2039 Part 1	
Ultimate tensile strength	N/mm²	DIN 53455	
Elongation at break	%	DIN ISO / R 527	70
Modulus of elasticity	N/mm²	DIN 53457	
Notched impact strength (Sharpy)	kJ/m²	DIN 53453	7
Abrasion	%	Sand slurry method	
Coefficient of friction	µ		
Thermal properties			
Dimensional stability under heat	°C	DIN 53461	
Vicat softening temperature	°C	DIN 53460	
Crystalline melting range	°C	DTA	
Thermal conductivity at 23 °C	W/ (K * m)	DIN 52612	0,22
Specific heat at 23 °C	kJ/ (K * Kg)		
Coefficient of linear expansion at 23 °C	10^{-5} * (1/K)	DIN 53752	16
Fire behaviour		UL 94	HB
Application temperature (min.)	°C		0
Application temperature (constant)	°C		+ 80
Moisture absorption	%		< 0,01
Electrical properties			
Specific volume resistance	Ω * cm	DIN 53482	10^{16}
Surface resistance	Ω	DIN 53482	10^{14}
Dielectric strength	kV/mm	DIN 53481	52
Dielectric constant at 50 Hz		DIN 53485	

physiologically harmless according to EU-directive 2002/72/EG,
FDA-directive 21CFR177.1520 and 21CFR178.3297

plastim Wefamedic® 1020 (ISO 5834 Part 1 + 2)

Standard colour(s): natural
Special colour(s): –
Fields of application: • endoprosthetic surgery

Properties: • good mechanical and physical properties
• high toughness
• outstanding tribological characteristics

Material designation	Wefamedic® 1020		
Raw material	PE-UHMW		
Material colour(s)	natural		
Properties	**Unit**	**Test method**	**Value**
Molecular weight (average molar mass)	g/mol		5 Mio.
Mechanical properties			
Density	g/cm³	DIN 53479	0,93
Tensile strength	N/mm²	DIN 53455	
Shore D hardness, 15s - Value	Skala D	DIN 53505	
Ball indentation hardness, 30s - Value	N/mm²	DIN ISO 2039 Part 1	
Ultimate tensile strength	N/mm²	DIN 53455	
Elongation at break	%	DIN ISO / R 527	> 50
Modulus of elasticity	N/mm²	DIN 53457	720
Notched impact strength (Sharpy)	kJ/m²	DIN 53453	≥ 180
Abrasion	%	Sand slurry method	100
Coefficient of friction	µ		
Thermal properties			
Dimensional stability under heat	°C	DIN 53461	42
Vicat softening temperature	°C	DIN 53460	80
Crystalline melting range	°C	DTA	130 – 135
Thermal conductivity at 23 °C	W/ (K * m)	DIN 52612	0,41
Specific heat at 23 °C	kJ/ (K * Kg)		1,84
Coefficient of linear expansion at 23 °C	10^{-5} * (1/K)	DIN 53752	~ 20
Fire behaviour		UL 94	HB
Application temperature (min.)	°C		
Application temperature (constant)	°C		
Moisture absorption	%		< 0,01
Electrical properties			
Specific volume resistance	Ω * cm	DIN 53482	> 10^{14}
Surface resistance	Ω	DIN 53482	> 10^{12}
Dielectric strength	kV/mm	DIN 53481	45
Dielectric constant at 50 Hz		DIN 53485	2,1

plastim Wefamedic® 1050 (ISO 5834 Part 1 + 2)

Standard colour(s): natural
Special colour(s): –
Fields of application: • endoprosthetic surgery

Properties: • good mechanical and physical properties
• high toughness
• outstanding tribological characteristics

Material designation	Wefamedic® 1050		
Raw material	PE-UHMW		
Material colour(s)	natural		
Properties	**Unit**	**Test method**	**Value**
Molecular weight (average molar mass)	g/mol		9,2 Mio.
Mechanical properties			
Density	g/cm³	DIN 53479	0,93
Tensile strength	N/mm²	DIN 53455	
Shore D hardness, 15s - Value	Skala D	DIN 53505	
Ball indentation hardness, 30s - Value	N/mm²	DIN ISO 2039 Part 1	
Ultimate tensile strength	N/mm²	DIN 53455	
Elongation at break	%	DIN ISO / R 527	> 50
Modulus of elasticity	N/mm²	DIN 53457	680
Notched impact strength (Sharpy)	kJ/m²	DIN 53453	≥ 90
Abrasion	%	Sand slurry method	80
Coefficient of friction	µ		
Thermal properties			
Dimensional stability under heat	°C	DIN 53461	42
Vicat softening temperature	°C	DIN 53460	80
Crystalline melting range	°C	DTA	130 – 135
Thermal conductivity at 23 °C	W/ (K * m)	DIN 52612	0,41
Specific heat at 23 °C	kJ/ (K * Kg)		1,84
Coefficient of linear expansion at 23 °C	10^{-5} * (1/K)	DIN 53752	~ 20
Fire behaviour		UL 94	HB
Application temperature (min.)	°C		
Application temperature (constant)	°C		
Moisture absorption	%		< 0,01
Electrical properties			
Specific volume resistance	Ω * cm	DIN 53482	> 10^{14}
Surface resistance	Ω	DIN 53482	> 10^{12}
Dielectric strength	kV/mm	DIN 53481	45
Dielectric constant at 50 Hz		DIN 53485	2,1

plastim St 500® (DIN 16972 TG3)

Standard colour(s): natural, black, green
Special colour(s): RAL-K7
Fields of application:
- food industry
- mechanical engineering
- transport and conveyor systems
- brewery technology

Properties:
- outstanding wear resistance and good sliding properties
- high bending and impact resistance
- highest cold resistance

Material designation	St 500®		
Raw material	PE-HMW		
Material colour(s)	natural, black, green		
Properties	**Unit**	**Test method**	**Value**
Molecular weight (average molar mass)	g/mol		0,5 Mio.
Mechanical properties			
Density	g/cm³	DIN 53479	0,96
Tensile strength	N/mm²	DIN 53455	27
Shore D hardness, 15s - Value	Skala D	DIN 53505	~ 70
Ball indentation hardness, 30s - Value	N/mm²	DIN ISO 2039 Part 1	46
Ultimate tensile strength	N/mm²	DIN 53455	25
Elongation at break	%	DIN ISO / R 527	100
Modulus of elasticity	N/mm²	DIN 53457	1.060
Notched impact strength (Sharpy)	kJ/m²	DIN 53453	o.Br.
Abrasion	%	Sand slurry method	> 250
Coefficient of friction	µ		0,1 - 0,2
Thermal properties			
Dimensional stability under heat	°C	DIN 53461	47
Vicat softening temperature	°C	DIN 53460	80
Crystalline melting range	°C	DTA	130 – 135
Thermal conductivity at 23 °C	W/ (K * m)	DIN 52612	0,41
Specific heat at 23 °C	kJ/ (K * Kg)		1,8
Coefficient of linear expansion at 23 °C	10^{-5} * (1/K)	DIN 53752	~ 20
Fire behaviour		UL 94	HB
Application temperature (min.)	°C		- 100
Application temperature (constant)	°C		+ 80
Moisture absorption	%		< 0,01
Electrical properties			
Specific volume resistance	Ω * cm	DIN 53482	< 10^{15}
Surface resistance	Ω	DIN 53482	< 10^{13}
Dielectric strength	kV/mm	DIN 53481	40
Dielectric constant at 50 Hz		DIN 53485	2,9

physiologically harmless according to EU-directive 2002/72/EG,
FDA-directive 21CFR177.1520 and 21CFR178.3297

plastim St 500® AST (DIN 16972 TG3)

Standard colour(s): black
Special colour(s): –
Fields of application:
- chemical industry
- mechanical engineering
- transport and conveyor systems
- brewery technology
- aircraft industry

Properties:
- antistatic
- high bending- and impact strength
- highest cold resistance
- good chemical resistance

Material designation	St 500® AST		
Raw material	PE-HMW		
Material colour(s)	black		
Properties	**Unit**	**Test method**	**Value**
Molecular weight (average molar mass)	g/mol		0,5 Mio.
Mechanical properties			
Density	g/cm³	DIN 53479	0,962
Tensile strength	N/mm²	DIN 53455	≥ 27
Shore D hardness, 15s - Value	Skala D	DIN 53505	
Ball indentation hardness, 30s - Value	N/mm²	DIN ISO 2039 Part 1	46
Ultimate tensile strength	N/mm²	DIN 53455	≤ 25
Elongation at break	%	DIN ISO / R 527	> 100
Modulus of elasticity	N/mm²	DIN 53457	1.060
Notched impact strength (Sharpy)	kJ/m²	DIN 53453	o. Br.
Abrasion	%	Sand slurry method	~ 250
Coefficient of friction	µ		
Thermal properties			
Dimensional stability under heat	°C	DIN 53461	47
Vicat softening temperature	°C	DIN 53460	80
Crystalline melting range	°C	DTA	130 – 135
Thermal conductivity at 23 °C	W/ (K * m)	DIN 52612	0,41
Specific heat at 23 °C	kJ/ (K * Kg)		
Coefficient of linear expansion at 23 °C	10^{-5} * (1/K)	DIN 53752	20
Fire behaviour		UL 94	HB
Application temperature (min.)	°C		- 100
Application temperature (constant)	°C		+ 80
Moisture absorption	%		< 0,01
Electrical properties			
Specific volume resistance	Ω * cm	DIN 53482	$< 10^{9}$
Surface resistance	Ω	DIN 53482	$< 10^{6}$
Dielectric strength	kV/mm	DIN 53481	
Dielectric constant at 50 Hz		DIN 53485	

plastim A4®

Standard colour(s): black, green
Special colour(s): –
Fields of application:
- transport and conveyor systems
- beverage and bottling industry
- mechanical engineering

Properties:
- excellent wear- and anti-friction properties
- excellent mechanical properties

Material designation	A4®		
Raw material	PE-UHMW		
Material colour(s)	black, green		
Properties	**Unit**	**Test method**	**Value**
Molecular weight (average molar mass)	g/mol		
Mechanical properties			
Density	g/cm³	DIN 53479	0,96
Tensile strength	N/mm²	DIN 53455	27
Shore D hardness, 15s - Value	Skala D	DIN 53505	64 – 68
Ball indentation hardness, 30s - Value	N/mm²	DIN ISO 2039 Part 1	40
Ultimate tensile strength	N/mm²	DIN 53455	30
Elongation at break	%	DIN ISO / R 527	200
Modulus of elasticity	N/mm²	DIN 53457	900
Notched impact strength (Sharpy)	kJ/m²	DIN 53453	> 30 – 110
Abrasion	%	Sand slurry method	~ 130
Coefficient of friction	µ		0,2
Thermal properties			
Dimensional stability under heat	°C	DIN 53461	47
Vicat softening temperature	°C	DIN 53460	79
Crystalline melting range	°C	DTA	130 – 135
Thermal conductivity at 23 °C	W/ (K * m)	DIN 52612	0,42
Specific heat at 23 °C	kJ/ (K * Kg)		1,8
Coefficient of linear expansion at 23 °C	10^{-5} *(1/K)	DIN 53752	20
Fire behaviour		UL 94	HB
Application temperature (min.)	°C		- 200
Application temperature (constant)	°C		+ 80
Moisture absorption	%		< 0,01
Electrical properties			
Specific volume resistance	Ω * cm	DIN 53482	> 10^{15}
Surface resistance	Ω	DIN 53482	> 10^{13}
Dielectric strength	kV/mm	DIN 53481	40
Dielectric constant at 50 Hz		DIN 53485	

plastim A4® FQ

Standard colour(s): black
Special colour(s): –
Fields of application:
- transport and conveyor systems
- mechanical engineering
- fender construction (harbour facilities)

Properties:
- good sliding properties and abrasion resistance
- good mechanical properties
- good price-performance ratio

Material designation	A4® FQ		
Raw material	PE-UHMW		
Material colour(s)	black		
Properties	**Unit**	**Test method**	**Value**
Molecular weight (average molar mass)	g/mol		
Mechanical properties			
Density	g/cm³	DIN 53479	0,96
Tensile strength	N/mm²	DIN 53455	≥ 20
Shore D hardness, 15s - Value	Skala D	DIN 53505	64 – 68
Ball indentation hardness, 30s - Value	N/mm²	DIN ISO 2039 Part 1	38
Ultimate tensile strength	N/mm²	DIN 53455	30
Elongation at break	%	DIN ISO / R 527	> 150
Modulus of elasticity	N/mm²	DIN 53457	900
Notched impact strength (Sharpy)	kJ/m²	DIN 53453	≥ 80
Abrasion	%	Sand slurry method	125 ± 25
Coefficient of friction	μ		0,2
Thermal properties			
Dimensional stability under heat	°C	DIN 53461	47
Vicat softening temperature	°C	DIN 53460	79
Crystalline melting range	°C	DTA	130 – 135
Thermal conductivity at 23 °C	W/ (K * m)	DIN 52612	~ 0,4
Specific heat at 23 °C	kJ/ (K * Kg)		1,8
Coefficient of linear expansion at 23 °C	10^{-5} * (1/K)	DIN 53752	20
Fire behaviour		UL 94	
Application temperature (min.)	°C		- 200
Application temperature (constant)	°C		+ 80
Moisture absorption	%		< 0,01
Electrical properties			
Specific volume resistance	Ω * cm	DIN 53482	> 10^{15}
Surface resistance	Ω	DIN 53482	> 10^{14}
Dielectric strength	kV/mm	DIN 53481	40
Dielectric constant at 50 Hz		DIN 53485	

plastim A4® G

Standard colour(s): multicolour
Special colour(s): –
Fields of application:
- transport and conveyor systems
- production of prefabricated concrete components
- harbour construction
- coal-fired power stations
- bunker linings

Properties:
- good sliding properties and abrasion resistance
- good mechanical properties
- good price-performance ratio

Material designation	A4® G		
Raw material	PE-UHMW		
Material colour(s)	multicolour		
Properties	**Unit**	**Test method**	**Value**
Molecular weight (average molar mass)	g/mol		
Mechanical properties			
Density	g/cm³	DIN 53479	0,95
Tensile strength	N/mm²	DIN 53455	18
Shore D hardness, 15s - Value	Skala D	DIN 53505	64 – 68
Ball indentation hardness, 30s - Value	N/mm²	DIN ISO 2039 Part 1	40
Ultimate tensile strength	N/mm²	DIN 53455	37
Elongation at break	%	DIN ISO / R 527	max. 200
Modulus of elasticity	N/mm²	DIN 53457	900
Notched impact strength (Sharpy)	kJ/m²	DIN 53453	> 30 – 110
Abrasion	%	Sand slurry method	~ 150
Coefficient of friction	µ		0,1 – 0,2
Thermal properties			
Dimensional stability under heat	°C	DIN 53461	47
Vicat softening temperature	°C	DIN 53460	79
Crystalline melting range	°C	DTA	130 – 135
Thermal conductivity at 23 °C	W/ (K * m)	DIN 52612	0,42
Specific heat at 23 °C	kJ/ (K * Kg)		1,8
Coefficient of linear expansion at 23 °C	10^{-5} * (1/K)	DIN 53752	20
Fire behaviour		UL 94	HB
Application temperature (min.)	°C		- 200
Application temperature (constant)	°C		+ 80
Moisture absorption	%		< 0,01
Electrical properties			
Specific volume resistance	Ω * cm	DIN 53482	< 10^{15}
Surface resistance	Ω	DIN 53482	< 10^{13}
Dielectric strength	kV/mm	DIN 53481	40
Dielectric constant at 50 Hz		DIN 53485	

colour chart

St 1000®, St 500®

Interne No.	RAL No.	Color
1001	1034	pastel yellow / wood
1002	1002	sand yellow
1003	1003	signal yellow
1004	1016	sulfur yellow
1005	1018	zinc yellow
2001	2009	traffic orange
2002	2010	signal orange
2003	3020	traffic red
2004	3009	oxide red / redbrown
2005	8014	sepia brown
2006	4007	purple violet
2007	4008	signal violet
2008	4003	heather violet
2009	3001	signal red
2010	2002	blood orange
3001	5001	green blue
3002	5003	saphire blue
3003	5005	signal blue
3004	5007	brillant blue
3005	5012	light blue
3006	5013	cobalt blue
3007	5015	sky blue
3008	5017	traffic blue
3009	5002	ultramarine blue
3010	5018	turquoise blue
3011	5010	gentian blue
4001	1027	curry / olive green
4002		neon yellow
4003	6016	turquoise green
4004		green
4005	6009	fir green
4006	6005	moss green
4007	6018	yellow green
4008	6021	pale green
5001	7011	iron grey
5002	7035	light grey
5003	7037	dusty grey
5004		grey blue
5005		silver
5006	7036	platinum grey
6000		black
7000		natural
7001	9003	signal white
7005		natural marble (fine)
7006		natural marble (standard)

Slight deviations in colours are possible, other colors on demand.