



CENTRODAL W™

Engineering plastic for use
in the field of drinking water



CENTRODAL W™ / POM W

Special plastic for safe use in the field of drinking water

CENTRODAL W™ is a versatile engineering plastic, which is especially suitable for **safe use in the field of drinking water**. Therefore CENTRODAL W™ has been successfully tested and certified according to the regulations of DVGW worksheet W270. The favourable material properties – high strength, hardness and rigidity together with good impact strength and chemical resistance, as well as favourable frictional and wear behaviour – allow CENTRODAL W™ to replace metals in numerous cases.



PROPERTIES / ADVANTAGES

- Versatile engineering plastic
- Ideal machinability
- Approval according to regulations of DVGW for use in the field of drinking water
- Acid and chemical resistant
- Compliant to foodstuff regulations according to BfR/FDA
- High hardness, rigidity and strength together with good impact strength
- High mechanical load-bearing capacity
- Favourable frictional and wear behaviour
- Extreme low water absorption

FIELD OF USE






- Fitting industry
- Food stuff industry
- Mechanical engineering
- Medical technology
- Pharmaceutical industry
- Plastics industry
- Water supply industry



FIELD OF APPLICATION

- Equipment such as seals and gaskets for pipes in the domestic installation
- Supply lines and main lines for cold and warm drinking water
- Construction parts for potable water bottling

DELIVERY PROGRAM

	Rods	length (mm)	tolerance length		diameter (mm)	diameter tolerance (mm)	
		1000	0% to +3%		5 to 255	+0,1 / +0,4 to +1,6 / +6,5	
		3000					
	Tubes	length (mm)	tolerance length		diameter (mm)	outer diameter tolerance (mm)	inner diameter tolerance (mm)
		1000	0% to +3%		20 / 10 to 350 / 300	+0,4 / +1,1 to +3,0 / +11,0	-0,4 / -1,1 to -3,5 / -14,0
		3000					
	Plates	length (mm)	tolerance length	width (mm)	tolerance width	thickness (mm)	thickness tolerance (mm)
		1000	0% to +3%	500	+1% to +4%	8 to 100	+0,2 / +0,9 to +0,5 / +5,0
		3000		610			
	Sheets	length (mm)	tolerance length	width (mm)	tolerance width	thickness (mm)	thickness tolerance (mm)
		1000	0% to +3%	1000	+1% to +4%	0,5 to 100	-0,02 / +0,08 to +0,5 / +5,0
		2000					
	Square Bars	length (mm)	tolerance length	width (mm)	tolerance width (mm)	thickness (mm)	thickness tolerance (mm)
		1000	0% to +3%	300	+0 to +12	300	-0,00 / +12,00

For updates please refer to www.centroplast.de

MATERIAL PROPERTIES

Property		Method of verification	Unit	CENTRODAL W™ POM W natural		
physical	Density	ISO 1183	g/cm ³	1,41	values for dry material [deviations are possible for saturated material]	
	Moisture pick-up till saturation (in normal climate 23°C/50% r.h.)	ISO 62	%	0,2		
	Water absorption till saturation (in water at 23 °C)	ISO 62	%	0,8		
	Food compliance ⁽³⁾	BfR ⁽¹⁾ / FDA ⁽²⁾		yes / yes		
mechanical	Tensile stress at yield [$v = 50$ mm/min] / Tensile stress at break [$v = 5$ mm/min]	ISO 527-2	MPa	63 / 63	1g/cm ³ = 1000 kg/m ³ ; 1 MPa = 1 N/mm ² ; PLEASE NOTE: The data is based on average values provided by our raw material suppliers, or our own measurements and correspond to our latest state of knowledge. Specifications may change with different raw material suppliers, but all necessary checks are made. The suitability of the products for a special application can not be guaranteed legally binding. All data is approximate and for general information (errors and misprints excepted). They do not represent guaranteed property values and they should not be used for specification purposes, or as general construction fundamentals. They do not relieve customers from the necessity of checking for suitability.	
	Nominal percentage elongation at break	ISO 527-2	%	31		
	Tensile modulus of elasticity	ISO 527-2	MPa	2600		
	Flexural modulus of elasticity	ISO 178	MPa	2500		
	Ball indentation hardness (value at 30 sec.)	ISO 2039-1	MPa	140		
	Charpy impact strength (+23 °C)	ISO 179/1eU	kJ/m ²	220		
	Charpy impact strength - notched (+23 °C)	ISO 179/1eA	kJ/m ²	8		
thermal	Temperature for usage in air (max. short term)		°C	140		
	(max. lasting)		°C	105		
	Minimum service temperature in air		°C	- 40		
	heat distortion temperature (HDT A process)	ISO 75-2	°C	96		
	Coefficient of linear expansion (at length, 23-60 °C)	DIN 53725	10 ⁻⁴ /K	1,1		
	Thermal conductivity (+23 °C)	DIN 52612	W/(K*m)	0,31		
	Flammability according UL Standard	UL 94	Class	HB		
	Vicat softening temperature (VST/B/50)	ISO 306	°C	150		
Melting point (DSC, 10 K/min)	ISO 3146	°C	165			
electric	Specific insulation resistance	IEC 60093	Ohm * m	10 ¹³	(1) values do not apply to black colored qualities (2) values do also apply to black colored qualities (3) KTW certified and approved for use in the field of drinking water n.br. = without break n.a. = not applicable o.r. = on request	
	Specific surface resistance	IEC 60093	Ohm	10 ¹³		
	Dielectric constant	at 1 MHz ⁽¹⁾	IEC 60250	10 ⁶ Hz		3,8
		at 100 Hz ⁽¹⁾	IEC 60250	10 ² Hz		3,8
	Dissipation factor	at 1 MHz ⁽¹⁾	IEC 60250	10 ⁶ Hz		0,008
		at 100 Hz ⁽¹⁾	IEC 60250	10 ² Hz		0,003
	Dielectric strength K20/K20 ⁽¹⁾ (in transformer oil)	IEC 60243-1	kV/mm	20		
	Comparative tracking index (CTI)	IEC 60112		600		

For updates please refer to www.centroplast.de



Subsidiary

CENTROPLAST

Engineering Plastics GmbH
Unterm Ohmberg 1
D-34431 Marsberg

Tel. +49 (0) 29 92.97 04-0
Fax +49 (0) 29 92.97 04-30
www.centroplast.de
info@centroplast.de

CENTROPLAST UK Ltd

Antom Court, Tollgate Drive
Tollgate Industrial Estate
GB-Stafford, Staffs. ST16 3AF

Tel. +44 (0) 1785.220 500
Fax +44 (0) 1785.220 555
www.centroplast.co.uk
sales@centroplast.co.uk

