

## Product information

### Wefapress PS 4190<sup>®</sup>

PS 4190<sup>®</sup> is an St 1000<sup>®</sup> is an ultrahigh molecular weight low pressure polyethylene with a molecular weight of approx. 9.2 million g/mol. By the use of a special part of additives the conductivity was improved so much, that it was no longer necessary to add micro glass beads. Thereby the the wear behaviour towards the wire and the lining can be reduced. PS 4190<sup>®</sup> was developed for special applications in the paper industrie up to 700 m/min.

The characteristics of PS 4190<sup>®</sup> are as follows :

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



Standard colours:

anthracite

Special colours:

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Form of delivery:

only parts according to drawing

Finished parts:

on request

Einsatzgebiete:

- paper industry

## Technical Data Sheet

Material designation	PS 4190		
Raw material	PE-UHMW		
Material colour(s)	anthracite		
<b>Properties</b>	Unit	Test method	Value
Molecular weight (average molar mass)	g/mol		~ 9,2 Mill.
<b>Mechanical properties</b>			
Density	g/cm <sup>3</sup>	DIN 53479	0.97
Tensile strength	N/mm <sup>2</sup>	DIN 53455	23
Shore D hardness, 15s - Value	D scale	DIN 53505	68
Ball indentation hardness, 30s - Value	N/mm <sup>2</sup>	DIN ISO 2039 part 1	47
Ultimate tensile strength	N/mm <sup>2</sup>	DIN 53455	35
Elongation at break	%	DIN ISO / R 527	350
Modulus of elasticity	N/mm <sup>2</sup>	DIN 53457	700
Notched impact strength (Charpy)	kJ/m <sup>2</sup>	DIN 53453	> 70 - 120
Abrasion	%	Sand slurry method	~ 65
Coefficient of friction	μ		0.08
<b>Thermal properties</b>			
Dimensional stability under heat	°C	DIN 53461	47
Vicat softening temperature	°C	DIN 53460	79
Crystallite 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 <sup>-5</sup> * (1/K)	DIN 53752	1 * 10 <sup>-4</sup>
Fire behaviour		UL 49	HB
Application temperature (min.)	°C		- 100
Application temperature (constant)	°C		+ 85
Moisture absorption	%		< 0.01
<b>Electrical properties</b>			
Specific volume resistance	Ω * cm	DIN 53482	
Surface resistance	Ω	Din 53482	
Dielectric strength	kV/mm	DIN 53481	~ 980
Dielectric constant at 50 Hz		DIN 53485	

**Notes for the user:**

Data sheet specifications are made to our today's knowledge. This information does not mean that certain properties are agreed upon or assured. Whether or not a material is suitable for a given application is the user's decision. All specifications are subject to change.

Vreden, 11.05.07/dv