

# POLI W

Industrial Motors

Commercial & Appliance  
Motors

Automation

Digital & Systems

Energy

Transmission &  
Distribution

**Coatings**

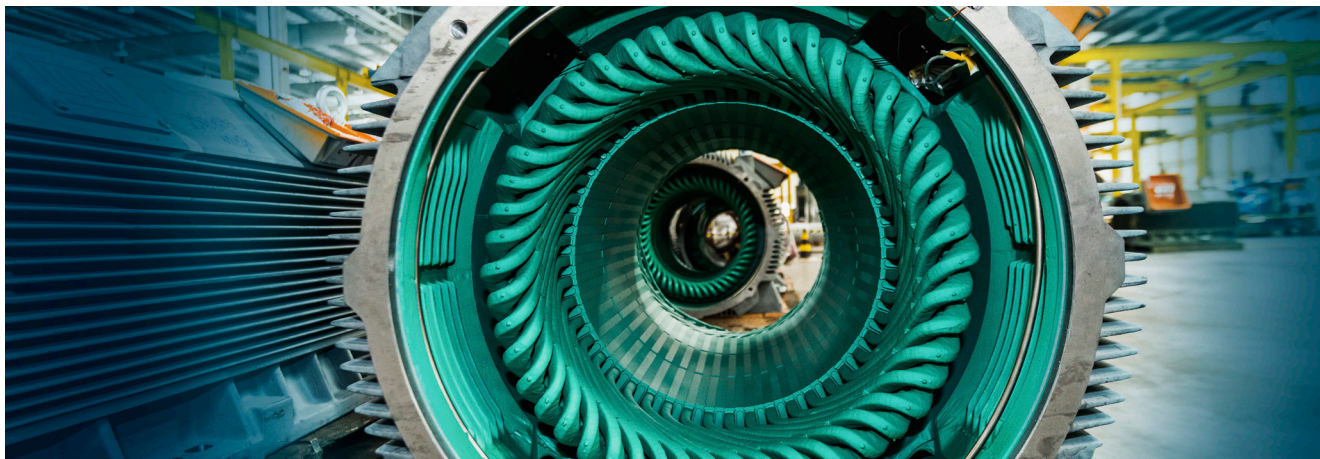
**Enamel for** copper  
and aluminium wires



Driving efficiency and sustainability



# POLI W - Enamel for copper and aluminium wires



## Polyesterimide (PEI) Enamel modified with THEIC

Recommended for application on high thermal class wires. Presents excellent chemical and electrical properties for manufacture of coiled products for transformers, hermetic motors and motors in general.

Product	% Solids	Brookfield Viscosity	Application	Application System
BREESY* 180/38700 PEI H W	37,50 ± 0,5%	600 – 700 cps	Enameling of circular copper and aluminum wires, nominal diameter 0.25 - 2.00mm. Degree 1 and 2.	Dies, horizontal and vertical furnaces
POLI W 180/38700 PEI W	36 ± 1 %	600 – 750 cps	Circular copper wires, nominal diameter 0.25 - 2.00mm	Dies
POLI W 180/36 PEI Green W	36 ± 1 %	600 – 750 cps	Circular copper wires, nominal diameter 0.25 – 2.00mm	
POLI W 180/36 PEI W		600 – 700 cps		
POLI W 180/36 PEI ESPECIAL W				
POLI W 180/38 PEI W	38± 1 %	500 – 600 cps	Circular copper wires, nominal diameter 0.15 – 1.50mm	
POLI W 180/37 PEI W	37 ± 1 %	400 – 500 cps	Circular copper wires, nominal diameter 0.25 – 2.00mm	
POLI W 180/33 PEI RG W	33 ± 2 %	1100 - 1300 cps	Rectangular copper wires	
POLI W 180/39 PEI W	38 ± 1%	700 – 800 cps	Thick circular copper wires, nominal diameter 1.32 - 3.26mm	
POLI W E180/33 PEI W	33 ± 1 %	280 – 380 cps	Fine circular copper wires, nominal diameter 0.15 – 0.60mm. Degree 1 and 2	
POLI W 180/29 PEI W	29±1%	110 – 140 cps	Circular copper wires, nominal diameter 0.03 – 1.00mm	Felts

\* BREESY line product - Without cresol.

## Weldable Polyurethane Enamel (PU)

Recommended for applications on class F/H wires for the electrical and electronic industry and coiled products in general. Presents excellent weldability and “pin-holes” test resistance.

Product	% Solids	Brookfield Viscosity	Application	Application System
<b>POLI W 155/26 PU-SD Red</b>	26 ± 1 %	80 – 100 cps	Circular copper wires, nominal diameter 0.03 – 0.80mm. Degree 1 and 2	Felts
<b>POLI W 155/26 PU-SD</b>	26 ± 1 %	80 – 100 cps	Circular copper wires, nominal diameter 0.03 – 0.80mm. Degree 1 and 2	
<b>POLI W 155/35 PU-SD</b>	35 ± 1 %	400 – 500 cps	Circular copper wires, nominal diameter 0.355 – 1.50mm. Degree 1 and 2	Dies
<b>POLI W 180/35 PU-SD</b>	33 ± 1%	480 – 580 cps	Circular copper wires, nominal diameter 0.10 – 1.5mm. Degree 1 and 2	
<b>POLI W 180/23 PU-SD</b>	22 ± 2%	50 – 60 cps	Circular copper wires, nominal diameter 0.03 – 0.40mm. Degree 1 and 2	Felts

## Polyvinylformal Enamel (PVF)

Recommended for application on thick and rectangular wires for manufacture of transposed cables and wires for transformers. Presents excellent mechanical and electrical properties and resistance to transformers oil.




Product	% Solids	Brookfield Viscosity	Application	Application System
<b>BREESY* 120/18 PVF</b>	18 ± 2 %	1900 – 2500 cps	Thick circular copper wires; rectangular wires	Dies

\* Product da Linha BREESY - Sem cresol.





### Polyamidimide Enamel (PAI)

Recommended for application on enameled wires, with overcoat function, providing wires with excellent mechanical properties and high thermal class increasing chemical resistance properties. Recommended for coils of hermetic motors and motors in general.

Product	% Solids	Brookfield Viscosity	Application	Application System
<b>POLI W E200/26 PAI</b> 	26 ± 2 %	150 – 220 cps	Circular copper wires, nominal diameter up to 0.30mm	Felts
<b>POLI W E200/32 PAI</b> 	32 ± 1 %	600 – 800 cps	Circular copper wires, nominal diameter 1.32mm. Degree 1 and 2	Dies
<b>POLI W E200/38 PAI</b> 	38 ± 1 %	1600 – 2200 cps	Circular copper wires, nominal diameter up to 5.0mm and rectangular wires	

### Weldable (SD) Polyesterimide Enamel (PEI)

Recommended for application on weldable wires of high thermal class. Presents excellent welding properties indicated to manufactures of coils for small motors and coiled products in general.

Product	% Solids	Brookfield Viscosity	Application	Application System
<b>POLI W E180/30 PEI-SD</b> 	29 ± 1 %	90 – 110 cps	Circular copper wires, nominal diameter 0.03 – 1.00mm. Degree 1 and 2	Felts
<b>POLI W E180/37 PEI-SD</b> 	37 ± 1 %	400 – 500 cps	Circular copper wires, nominal diameter 0.03 – 2.00mm. Degree 1 and 2	Dies

### Modified selfbonding epoxy enamel

Recommended for application on rectangular wires with PVF base for manufacturing transposed cables working as a selfbonding.

Product	% Solids	Brookfield Viscosity	Application	Application System
<b>BREESY* 120/26 Epoxy</b>	28 ± 2 %	2500 - 3100 cps	Rectangular wires	Dies

\* BREESY line product - Without cresol.

### Polyimide enamel

Recommended for application on thermal class 240°C circular copper wires. Provides high thermal resistance with high mechanical and electrical resistance even when submitted to high temperatures.

Product	% Solids	Brookfield Viscosity	Application	Application System
<b>POLI W 240/12 PI</b>	12 ± 1 %	950 - 1500 cps	Circular copper wires	Dies

### Esmalte Poliamida

Recommended as a topcoat on polyester or Polyesterimide to increase mechanical resistance and reduce friction, as well as an adhesion promoter (primer) on speakers and thick circular and rectangular wires.

Product	% Solids	Brookfield Viscosity	Application	Application System
<b>POLI W PA/8</b>	8 ± 1 %	120 - 170 cps	Fine wires, nominal diameter up to 0.50mm	Felts
<b>POLI W PA/12</b>	11 ± 13 %	-	Speakers	Dies and Brush
<b>POLI W PA/16</b>	15 ± 1 %	7000 - 10000 cps	Thick circular wires and rectangular	Dies

### Paraffin lubricants for enameled wires

Recommended for application on enameled wires, increasing the resistance to friction in the electric coiled products production.

Product	% Solids
<b>Lube W 10 (PARAFFIN)</b>	0,30 – 0,70%
<b>Lube W 15 (PARAFFIN)</b>	0,70 – 1,30%
<b>Lube W 17 (PARAFFIN)</b>	1,30 – 1,70%

### Ester lubricants for hermetic enameled wires

Recommended for application on enameled wires, increasing the resistance to friction in the electric coiled products production in hermetic motors where refrigerating gas 134th used.

Product	% Solids
<b>Lube W E 10 (ESTER)</b>	1%
<b>Lube W E 15 (ESTER)</b>	1,5%



UL is an independent American certification laboratory with over a century of experience, serving as a global reference in the electrical market. UL certification provides customers with the security of purchasing a product that undergoes periodic inspections and quality assurance from an international body, ensuring high-tech, high-quality products for the electrical insulation market.

The scope of WEG Group solutions is not limited to the products and solutions presented in this brochure.

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