

PB 325

### Belden® PPO UL AWM Hook-up Wire

PPO Hook-up Wire (HuW) merits use of Belden's GreenChoice™ product rating. While being an environmentally-friendly and fully recyclable product, there are many performance benefits that set PPO HuW apart from PVC wire as it is a smaller, lighter, and more durable product. Now a better-performing product that is also environmentally-friendly is at your fingertips.



### Belden PPO HuW Outperforms Traditional PVC-insulated and XLPE insulated HuW While Being Environmentally-Friendly.



#### Performance Advantages of PPO Insulation

Often times, products that are "green" end up sacrificing various performance characteristics to make less of an impact on the environment. With Belden's use of polyphenylene oxide (PPO) as the wire's insulation material, engineers can spec PPO HuW and have confidence that it will offer optimum performance.

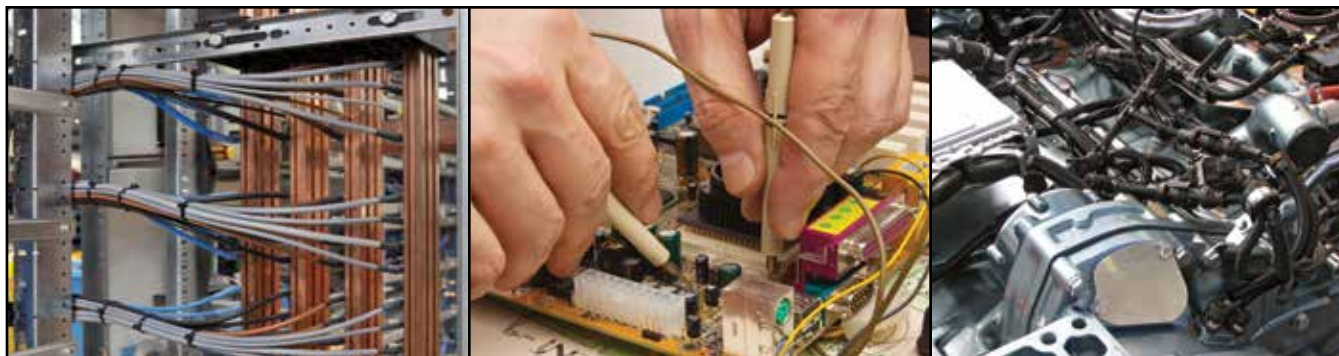
- **Dielectric Strength** – The superior dielectric properties of PPO enables a thinner wall thickness and an outside diameter (OD) which is up to 45% smaller and significantly lighter than conventional PVC insulated HuW.
- **Electrical Properties** – PPO-based wires offer the same electrical properties as PVC wires with a voltage rating of 600V.
- **Durability** – The strength and flexibility of PPO enables it to outperform PVC and other insulation materials. Although a PPO insulated wire has a thinner wall thickness than PVC, it offers 10x better abrasion and pinch resistance than that of PVC.
- **Thermal Properties** – PPO-insulated wires operate over a wide range of temperatures (from -40°C to +105°C) and meet VW-1 UL 1581 flame rating requirements.
- **Low Specific Gravity/Density** – PPO has a specific gravity of 1.03, which is 25-40% lower than insulation materials such as PVC, polyethylene and cross-linked polyethylene. The lower density of PPO, in addition to the insulation's reduced wall thickness, yields a weight savings of up to 40%. This reduction in cable weight can have a positive impact on the cost of installation or use of the wires.

#### Ecological Benefits of PPO Hook-up Wire

With increasing pressure on corporate environmental responsibility, there is an ever-growing urge to scrutinize every element that comprises a product. Even something as small as changing the wiring within a machine can have a dramatic effect on the environment. PPO HuW has many ecological benefits which include:

- **Non-Pollutant/Non-Toxic** – PPO insulation contains no halogens, phthalates, or heavy metals. The absence of toxic materials commonly found in PVC-insulated wire allows the wire to be burned or disposed of without any harm to the environment.
- **Recyclable/Waste Reducer** – Unlike another zero halogen insulation, cross-linked polyethylene (XLPE), PPO is a fully recyclable compound. Use of PPO insulation material also equates to a wire with a smaller OD and lighter weight.

Additionally, PPO HuW meets the requirements of the RoHS (Restriction on Hazardous Substances) and WEEE (Waste Electrical and Electronic Equipment) initiatives.

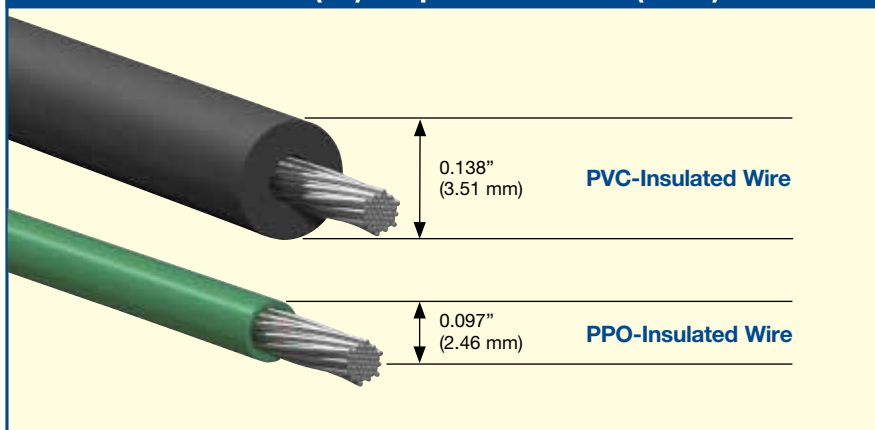


## Applications

Since Belden PPO HuW has a non-halogenated insulation, a smaller OD than conventional hook-up wire, and exceptional durability characteristics, it meets the needs of component and OEM manufacturers across a broad range of markets, including:

- Electrical panel builders
- Electrical/electronic manufacturers
- Appliance manufacturers
- Furniture
- Computer manufacturers
- Automotive companies and their sub-suppliers
- Buildings Hook

## Nominal Outside Diameter (OD) Comparison of 14 AWG (41x30) Wire



Wire Specifications	
<b>Conductors</b>	Stranded Tinned Copper
<b>Insulation</b>	Zero Halogen Polyphenylene Oxide (PPO)
<b>Colors</b>	Brown, Red, Orange, Yellow, Green, Violet, Gray, White, Black, Blue, Green/Yellow
<b>Voltage Rating</b>	600V UL AWM Style 11028
<b>Temperature Range</b>	-40°C to +105°C
<b>Put-ups</b>	100 ft (30.5 m), 1000 ft (304.8 m), 5000 ft (1524.0 m)
<b>Approvals</b>	UL AWM Style 11028 VW-1 UL 1581 RoHS Compliant REACH Compliant CE Compliant CA Prop 65 Compliant

## Belden PPO Hook-up Wire



Part No.	AWG (Stranding)	Insulation Thickness		Nominal OD	
		Inch	mm	Inch	mm
<b>600V, 105°C (UL)</b>					
<b>UL AWM Style 11028</b>					
<b>39128</b>	28 (7x36)	0.012	0.30	0.039	0.99
<b>39126</b>	26 (7x34)	0.012	0.30	0.043	1.09
<b>39124</b>	24 (7x32)	0.012	0.30	0.048	1.22
<b>39122</b>	22 (7x30)	0.012	0.30	0.053	1.35
<b>39120</b>	20 (10x30)	0.012	0.30	0.061	1.55
<b>39118</b>	18 (16x30)	0.012	0.30	0.069	1.75
<b>39116</b>	16 (26x30)	0.012	0.30	0.083	2.11
<b>39114</b>	14 (41x30)	0.012	0.30	0.097	2.46
<b>39112</b>	12 (65x30)	0.012	0.30	0.111	2.82
<b>39110</b>	10 (105x30)	0.012	0.30	0.144	3.66