

PB 325

Belden® PPO UL AWM Hook-up Wire

PPO Hook-up Wire merits use of Belden's GreenChoice™ product rating. PPO Wire does not release the environmental pollutants characteristic of PVC-insulated wire. This fully recyclable product also meets or exceeds the electrical and thermal characteristics of PVC wire, while being smaller, lighter and more durable.



Belden PPO Hook-up Wire Outperforms Traditional PVC-insulated and XLPE-insulated Hook-up Wire, While Being Friendly to the Environment



The Ecological Benefits of Hook-up Wire with PPO Insulation

The ecological benefits that come from use of Polyphenylene Oxide (PPO) as a wire insulation material include:

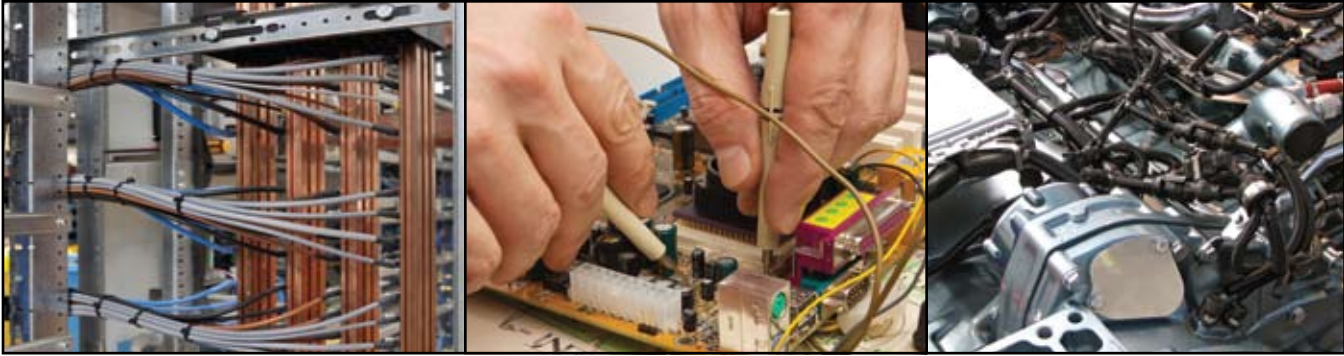
- **Non-Pollutant/Non-Toxic** - This insulation contains no halogens, phthalates, or heavy metals. The absence of toxic materials commonly found in PVC-insulated wire allows it to be burned or disposed of without harm to people, animals, or the environment.
- **Recyclable/Waste Reducer** - Unlike another 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 than conventional PVC-insulated hook-up wire.

PPO Hook-up Wire also meets the requirements of the RoHS (Restriction on Hazardous Substances) and WEEE (Waste Electrical and Electronic Equipment) initiatives. Visit <http://www.belden.com/02About/02EnvironmentalCompliance.cfm> for more information.

Performance Advantages of PPO Insulation

In addition to its ecological benefits, the use of Polyphenylene Oxide (PPO) as the wire's insulation material provides a range of performance advantages:

- **Dielectric Strength** - The superior dielectric properties of PPO enables a thinner wall thickness and an outside diameter (OD) which is up to 45% smaller than equivalent wires.
- **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.
- **Thermal Properties** - PPO-insulated wires operate over a wide range of temperatures (from -40°C to +105°C) and meet the 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.

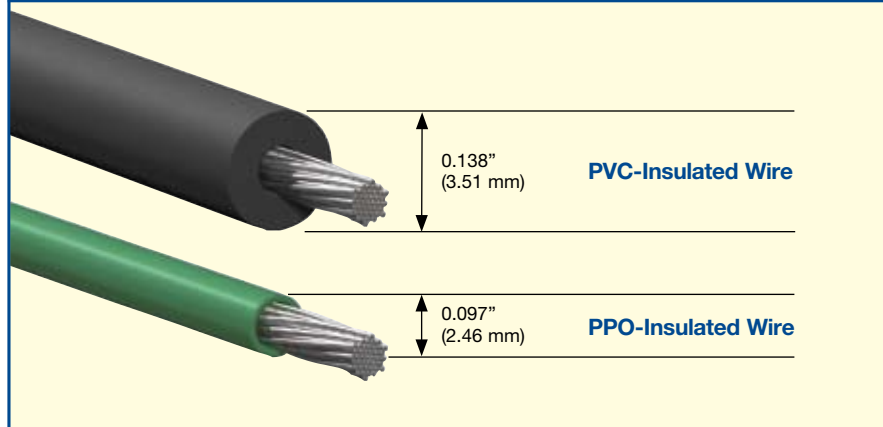


Applications

Since Belden PPO Hook-up Wire has a non-halogenated insulation, a smaller OD than conventional hook-up wire and exceptional durability characteristics, it meets the needs of environmentally-conscious 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

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



Wire Specifications

Conductors	Stranded Tinned Copper
Insulation	Zero Halogen Polyphenylene Oxide (PPO)
Colors	Brown, Red, Orange, Yellow, Green, Violet, Gray, White, Black, Blue, Green/Yellow
Voltage Rating	600V UL AWM Style 11028
Temperature Range	-40°C to +105°C
Put-ups	100 ft (30.5 m), 1000 ft (304.8 m), 5000 ft (1524.0 m)
Approvals	UL AWM Style 11028 VV-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
600V, 105°C (UL)					
UL AWM Style 11028					
39128	28 (7x36)	0.012	0.30	0.039	0.99
39126	26 (7x34)	0.012	0.30	0.043	1.09
39124	24 (7x32)	0.012	0.30	0.048	1.22
39122	22 (7x30)	0.012	0.30	0.053	1.35
39120	20 (10x30)	0.012	0.30	0.061	1.55
39118	18 (16x30)	0.012	0.30	0.069	1.75
39116	16 (26x30)	0.012	0.30	0.083	2.11
39114	14 (41x30)	0.012	0.30	0.097	2.46
39112	12 (65x30)	0.012	0.30	0.111	2.82
39110	10 (105x30)	0.012	0.30	0.144	3.66