> APPLICATION & PRODUCT SELECTION GUIDE

GLASFORMS[™] ELECTRICAL COMPONENTS Composite Materials for Power Transmission and Distribution Products



Extend the service life of electrical transmission and distribution products with Glasforms[™] composite technologies.

The formula: extensive electrical industry experience combined with pioneering composite technology expertise. The result: a diverse portfolio of purpose-engineered electrical components that meet the specific and rigorous demands of the electrical utility industry, and have been trusted by major utility product manufacturers for over 40 years.

KEY CHARACTERISTICS

Glasforms' automated pultrusion process creates constant cross-section profiles with consistent, uniform quality and exceptional dielectric and mechanical performance. Proprietary composite formulations and technologies prevent voids and produce high-quality insulator core rods that withstand stringent electrical testing and end-use manufacturing stresses such as thermal overmolding and mechanical crimping.

Performance advantages:

- High dielectric strength: composite material is custom formulated to optimize electrical properties resulting in exceptional insulation
- Lightweight: insulators are up to 80% lighter than porcelain and utility poles are more than 50% lighter than wood equivalents
- **High strength:** high tensile, compressive, flexural and inter-laminar shear strength to support various design configurations and line loads
- **Resilient:** deflect and return to original shape for structural damping to minimize damages and outages
- Durable: insulators are durable and shatter resistant vs. ceramic and glass; composite utility poles are UV corrosion resistant for a long service life

Cross Arms

Arrestors

Insulators

Overhead Switch Rods

Composite Pole

GridCore[™]

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____ Guy Insulators

Electrical Transmission & Distribution Applications

| COMPONENT | DESCRIPTION | SIZES |
|---|---|---|
| Insulators for transmission and distribution | | |
| Suspension insulators | Epoxy/glass fiber rods | 0.625" to 1.25" diameter |
| Line post and station post insulators | Epoxy/glass fiber rods | 1.50" to 4.74" diameter |
| Arresters | | |
| Cage type | Polyester or vinyl ester/glass fiber rods | 0.125" to 0.50" diameter |
| Custom tubular | Polyester, vinyl ester or epoxy/ glass fiber custom shapes | 2.0" to 6.0" envelope size |
| Pole line construction | | |
| Conductor standoff and equipment support arms | Polyester/glass fiber rods | 1.50" to 2.00" diameter |
| Guy strain insulators | Polyester/glass fiber rods | 0.50" to 0.812" diameter |
| Cross arms | | |
| Tangent and deadend, support braces | Polyester/glass fiber rectangular tubes | 3.62" x 4.62" and 4.0" x 6.0" rectangular |
| Utility poles | | |
| GridCore [™] Composite Utility Poles | Polyester/glass fiber hollow custom tubes | 12" to 14" diameter, typical lengths from 35' to 75' |

Pole line construction, cross arms, rods, and utility poles feature an integral fabric surfacing veil for long-term weather resistance and retention of properties. Mechanical properties and specifications are available—please contact Avient.

To learn more about GridCore Composite Utility Poles go to avient.com/gridcore





To learn more about our solutions, contact us at +1.844.4AVIENT

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