

RS FIRE SHIELD™



**High Performance
FIRE PROTECTION
FOR UTILITY POLES**



RS POLE WILDFIRE TESTING



Photo 1 - 0 Seconds, Fire Approaches



Photo 2 - 16 Seconds, Pole Engulfed in Flames

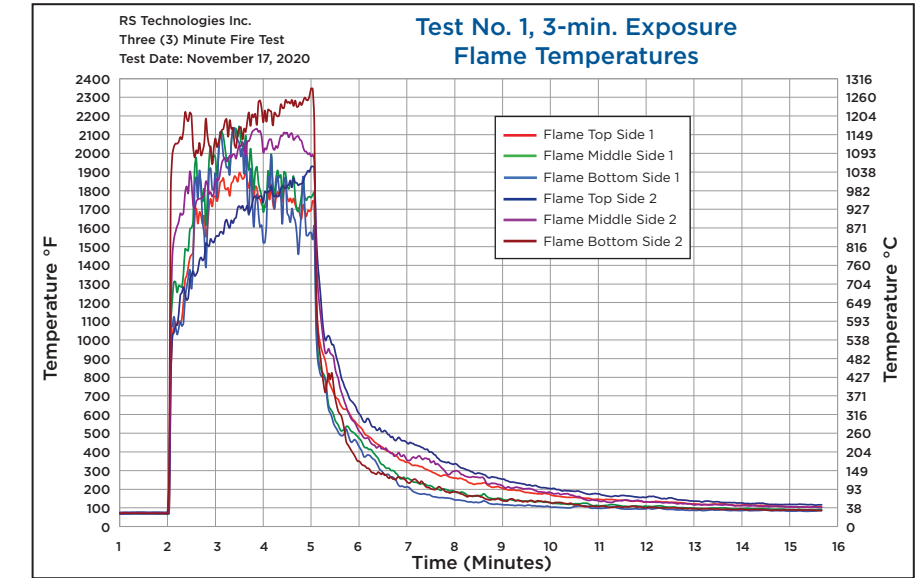
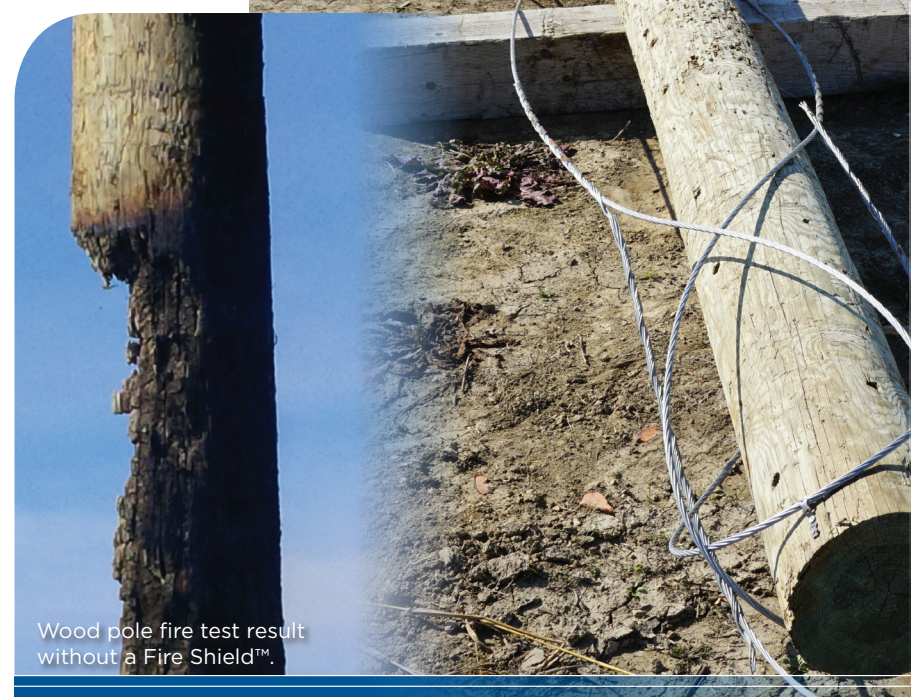


Photo 3 - 38 Seconds, Fire Recedes

Faced with increasing wildfire size, intensity and frequency, the utility industry is actively seeking a sustainable grid hardening solution for wildfire mitigation. Developed on the foundation of over 10 years of research, full-scale wildfire testing and real-world fire exposure, RS introduces the Fire Shield™ - a proven fire solution which keeps utility poles standing and the power on.

The RS Fire Shield™ is a lightweight, rigid, composite shell designed to encapsulate a utility pole to protect the pole and mitigate fire-related damage. Developed using the same self-extinguishing polyurethane resin formulation used in all RS poles, the Fire Shield™ provides extended fire duration protection. The Fire Shield™ creates a sacrificial thermal barrier protecting the underlying pole to ensure the pole's structural capacity is maintained during and after a wildfire event. The Fire Shield™ can be easily remediated following the fire event using a proprietary polyurethane resin restoration coating or quickly replaced, depending on the level of damage.

- ⑥ **Application** - Easily installed on existing, in service wood and composite poles.
- ⑥ **Long Lasting** - Full 80 year service life.
- ⑥ **Maintenance Free** - No scheduled maintenance required to achieve the 80 year service life.
- ⑥ **Self-Extinguishing** - The FRP composite laminate does not support combustion.
- ⑥ **Non-Conductive** - Eliminate utility pole ignition risk when combined with an RS composite pole. RS poles are not a source of wildfire ignition.
- ⑥ **Near Zero Pole Failures** - The Fire Shield™ enables power availability deeper into fire events and restore power quickly as pole replacements are no longer required.
- ⑥ **Critical Structures** - The Fire Shield™ protects high value structures with critical circuit equipment (i.e. switches, regulators, transformers, etc.).
- ⑥ **CAPEX/ O&M Expense** - Capitalize the pole protection system and eliminate future O&M expenses.



Fire Protection - When exposed to a fire, the resin rich surface of the Fire Shield™ self-extinguishes after removal of the source flame. The Fire Shield™ has been successfully tested to the following requirements:

- Three (3) minute exposure duration (typical fire residence time is <1 minute)
- Total heat flux of 16,540 kW-s/m²
- Peak temperature of 2,332°F [1,278°C]

Safety - The smooth finish and inherently non-conductive FRP composite Fire Shield™ helps to ensure the safety of the public when in close proximity to the pole. The smooth surface finish prohibits wildlife from climbing, perching or landing on the pole and assists in minimizing wildlife-related outages.

Post-Fire Remediation - Any damage to the Fire Shield™ during the wildfire event may be remediated using a proprietary polyurethane paint to restore the original UV and fire-resistant performance and smooth finish. If damage is extensive, the Fire Shield™ may be replaced.

Structural - Full-scale vertical bend testing of utility poles protected by the RS Fire Shield™ exposed to extreme fire events confirms the poles maintained their published strength and stiffness properties.

Cost Effective - Installation of the Fire Shield™ is accomplished quickly with minimal labor as lightweight sections are screwed to the underlying pole ensuring close and secure contact on a typical distribution pole.

Aesthetics - Fitting the form of the underlying pole, the Fire Shield™ is aesthetically appropriate as both brown or gray options closely match the original composite or wood pole color. The smooth, hydrophobic non-tracking finish of the polyurethane resin is maintained over the life of the product and the surface is cleaned when it rains.



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FIRE SHIELD™

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Since 2003, RS products
have been installed by
over 430 utility companies
in 28 countries.



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