

HEXION ARMORBUILT™ WILDFIRE SHIELD

Protect Your Assets

Safeguard existing wood utility poles against wildfires and extend pole life with a retrofit using ArmorBuilt Wildfire Shield.



Affordable, Sustainable and Easy to Apply

For more than a century, Hexion has delivered sustainable product innovations and technologies that enhance everyday life. Merging fire science and smart materials, Hexion's ArmorBuilt covering instantly swells and seals around the pole to create a protective and effective heat insulation barrier. This helps you extend the lifespan of your existing wood utility poles and avoid costly repair or replacement.



In 2020, 17,700 structures¹ were lost to wildfires, costing up to \$13B² in damages.



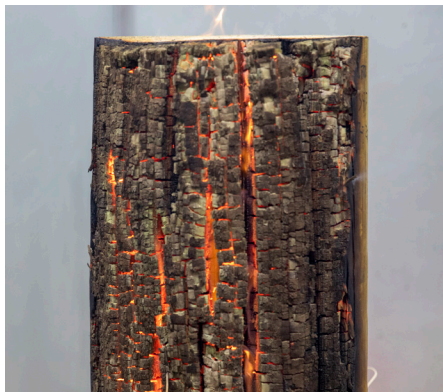
The cost to repair damage from a fire can be as high as \$40,000 per pole.³

 **HEXION™**

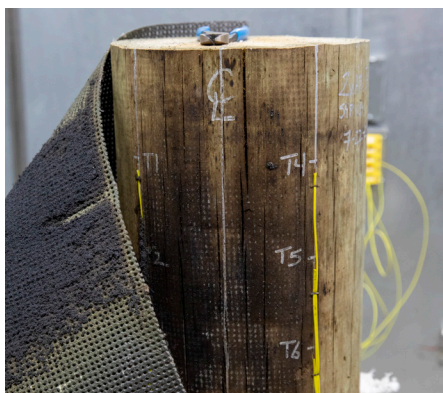
ArmorBuilt™ Wildfire Shield



Test picture



Pole without ArmorBuilt protection



Pole protected by ArmorBuilt Wildfire Shield

Heat-Triggered Protection

ArmorBuilt covering leverages Hexion's smart materials so that it swiftly responds to heat to form a protective barrier, dramatically reducing the risk of damage.

- Activates within 20 seconds when in contact with wildfire
- Swells around and insulates the pole
- Prevents burning, strength loss and pole failure
- Withstands 2,100°F flames for 30 minutes without damage to the pole⁴

Ideal for Existing Poles

ArmorBuilt protection isn't just for new utility pole installations. Poles that are currently in service position can also be wrapped in the vertical (in situ). Dig down around the base of the pole and begin the wrap below ground level.

A Durable Barrier

Designed with superior durability and self-healing properties, ArmorBuilt shield can withstand weather elements without compromising its protective performance.

- Self-heals and seals cuts and holes during a fire
- UV resistance confirmed by ASTM G154, UV apparatus with water spray and ASTM G90, Concentrated Natural Sunlight Accelerated Weathering⁵

Allows for Service and Inspection

Crews can still conduct routine pole utility inspections like boring tests with the ArmorBuilt wrap in place.

- Small drill holes will self-heal
- For inspections, a razor-knife can be used to cut a small flap, which can be fastened back in place

Designed for Line Workers

Safe and easy to apply, climb, cut and repair, ArmorBuilt wrap does not require special handling or installation practices — saving time in the field.

- Can be climbed and cut without compromise
- Holds over 500 pounds on a single gaff when double-wrapped⁶
- Has the same electrical insulating properties as a wood pole without protective coverings

Sustainable Security

Designed to extend the lifespan of wood utility poles by protecting them from the effects of wildfire and rot, ArmorBuilt wrap promotes a long-lasting and sustainably sourced power infrastructure which does not release harmful VOCs or chemicals.

Puts People First

By protecting poles so they stay upright, ArmorBuilt covering helps reduce the risk of fire spreading — helping prevent loss of life.

- Helps reduce risk of fires encroaching on towns and cities
- Helps maintain open ingress and egress routes for first responders and evacuees

A Cost-Effective Safeguard

ArmorBuilt shield is a cost-effective wildfire protection solution, helping to drastically minimize pole replacements and associated infrastructure repair costs.

- Has a built-in sustainable U.S. supply and scalability
- Produced on an ISO 9001:2015-certified site

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For Comprehensive Energy Management Program

Start Building Your Wildfire Defense

Put the power of ArmorBuilt protection to work for you. Contact an ArmorBuilt representative today at [Hexion.com](https://www.hexion.com).

¹National Interagency Fire Center's Incident Year-to-Date Report as of November 9, 2020.

²The costs of insured losses from fires through November 2020 in California, Oregon, Washington and Colorado as reported by Risk Management Solutions (RMS).

³Exacter and Cigre 2019 Pole Fire Survey and Research report.

⁴Third-party-certified Wildfire Simulation Testing (SWI/EDM) of wood poles secured with one and two layers of protective wrap revealed no char or strength loss when engulfed in 12-foot swirling, open flame at temperatures of 2,100°F for a duration of 3 minutes. Determination of charring depth of wood utility poles exposed to simulated wildland fires, conducted by Western Fire Center found no degradation of the pole surface after a 10 minute radiant panel and flame exposure.

⁵Over 2.5 years of continuous exposure, equivalent to over 30 years of exterior exposure using ASTM G154, operating UV Lamp apparatus for exposure of non-metallic materials cycle 7 with water spray and 10-year equivalent collaborative testing in Arizona to ASTM G90 Accelerated Outdoor weather of Materials using concentrated Natural Sunlight, Cycle 3 with nightly water-spray finds no loss in fire protection performance.

⁶PG&E climbing tests revealed that ArmorBuilt protective wrap can hold over 500 pounds when double-wrapped around wood utility poles.

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