

HEXION ARMORBUILT™ WILDFIRE SHIELD

# Guard the Grid

Ensure grid stability in the face of wildfires with the Hexion ArmorBuilt Wildfire Shield — a durable, burn-prevention safeguard for utility infrastructure protection.

## Durable, Affordable and Sustainable

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 wood utility poles, reduce repair costs and protect more people.



In 2020, 17,700 structures<sup>1</sup> were lost to wildfires, costing up to \$13B<sup>2</sup> in damages.



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

 **HEXION™**  
Responsible Chemistry



Test picture



Pole without ArmorBuilt



Pole after it was wrapped with ArmorBuilt

### Heat-Triggered Protection

A armorBuilt 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 flames with temperatures of up 2,100°F for >10 minutes in full exposure<sup>4</sup>

### A Durable Barrier

Designed with superior durability and self-healing properties, armorBuilt can withstand weather elements as well as routine utility inspections like boring tests without compromising its protective performance.

- Designed with superior durability
- Self-heals and seals cuts and holes during a fire
- UV resistance backed by Quantitative Ultra-Violet (QUV) testing<sup>5</sup>

### Designed for Line Workers

Safe and easy to apply, climb, cut and repair, armorBuilt accommodates regular utility pole maintenance tasks and does not require special handling or installation practices — saving time in the field.

- Easy to secure to new or existing poles, no special training required
- Can be climbed and cut without compromise
- Holds up to 490 pounds when double-wrapped<sup>6</sup>
- Has the same electrical insulating properties as a wood pole without protective coverings
- Passed wooden power-pole-handling testing

### Environmentally Sound, Sustainable Security

Designed to extend the lifespan of wood utility poles by protecting them from the effects of wildfire and rot, armorBuilt promotes a long-lasting and sustainably sourced power infrastructure.

- Poles can be re-secured with new material post-fire to ensure future fire protection
- Extends the lifespan of wood utility poles, a sustainably grown and 100% recyclable material that sequesters carbon
- Promotes a renewably sourced infrastructure
- Does not leach any harmful substances<sup>7</sup>
- Does not contain harmful volatile organic compounds<sup>8</sup>
- Meets indoor air quality standards<sup>8</sup>
- No special adhesives required, installed with heavy-duty staples

### Puts People First

By protecting poles so they stay upright, armorBuilt 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
- Greatly mitigates the potential loss of critical communications during wildfires

### A Cost-Effective Safeguard

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

- Helps prevent millions in damages
- Minimizes pole replacement and repair
- Has a built-in sustainable U.S. supply and scalability
- Produced on an ISO 9001:2015-certified site

## 2021 ENERGY STAR® Partner of the Year

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).

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

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

<sup>3</sup>Exacter and Cigre 2019 Pole Fire Survey and Research report.

<sup>4</sup>Third-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.

<sup>5</sup>Over 2.5 years of continuous Quantitative Ultra-Violet (QUV) testing, correlating to 30+ years of North American UV exposure, have demonstrated armorBuilt's ability to withstand the damaging effects of long-term UV light exposure. QUV refers to Q-Lab's line of weathering test machines. The method used is ASTM G 154, Cycle 7, which continuously repeats a cycle consisting of 8-hour UV exposure at 60°C (140°F), 15 minutes of water spray and 3.75 hours of condensation (humidity) at 50°C (122°F). This test is widely used in the coatings and plastics industries.

<sup>6</sup>PG&E climbing tests revealed that armorBuilt can hold up to 490 pounds when double-wrapped around wood utility poles.

<sup>7</sup>AWPA E11-20 Leaching studies

<sup>8</sup>CDPH 1350 VOC test

© 2021 Hexion. All rights reserved.