# **Composite Spring Technology**

Hendrickson's DRIVEN BY QUALITY<sup>™</sup> philosophy delivers a product line tailored for OEMs, fleets and owner-operators looking for improved ride, weight reduction, lower maintenance, improved vibration and harshness feedback over traditional leaf springs while increasing corrosion protection. Hendrickson's LITEFLEX composite springs are the proven choice for today's innovative ride solutions.

# LITEFLEX<sup>®</sup> Automotive Spring

- Weight reduction for improved range, ride and comfort
- Transverse springs can allow for lower hood lines with the elimination of coil towers to help lower drag coefficients
- Springs can be installed with ride cushions and inboard mounts
- Corrosion-resistant design improves spring lifespan

# LITEFLEX<sup>®</sup> Trailer Spring

- Weight reduction for improved range, ride and comfort
- Crafted with the needs of OEMs, fleets and owner-operators in mind
- Deliver enhanced feedback on vibration and harshness
- Corrosion- and sag-resistant design improves spring lifespan



- Up to 109 kg (240 lbs.) weight savings vs. traditional multi-leaf spring packs with a 6.8t (15,000 lb.) rated capacity which helps improve range and payload capacity
- Consistent ride height with optimized vibration and harshness
- Continuous-longitudinal filament technology provides enhanced strength vs. previous generation composite solutions
- Front and rear applications can help improve fuel efficiency, increase hauling capacity and provide corrosion resistance

# LITEFLEX<sup>®</sup> Heavy-Duty / Class 8 Spring

- Weight reduction of 30 percent vs. traditional leaf springs
- Creative approach utilizing a hybrid concept when stresses are not feasible with a single-leaf composite spring
- Front and rear applications can help improve fuel efficiency, increase hauling capacity and provide corrosion resistance









To learn more about Hendrickson Composite Spring Technology, call 866.743.3247 or visit hendrickson-composites.com



# Weight Savings

- Significant weight savings over traditional spring assemblies
- Can be offered by vehicle manufacturers as a lightweight hybrid spring

## **Corrosion Resistant**

Paint is optional

# **Filament Winding Process**

- Mixing process epoxy raw material
- Wind glass / epoxy around mold
- Curing using heat and pressure

• Cut and demold spring from mold

**Excellent Fatigue Performance** 

of equivalent steel leaf springs

issues / breakage

Composite springs typically meet or exceed the performance

Vehicle stays maneuverable in rare cases of spring

- Clean mold and apply mold release
- Restart cycle

# **Benefits of Filament Winding**

### **Materials**

- Epoxy / E-Glass @ 68-74 percent FWF
- Spring rates may be tuned (±5%) based on number of filaments

## **Proven Technology**

- Millions of springs produced with nearly zero ppm
- Excellent chemical, humidity and creep resistance
- Operating range between -40°C to +70°C (-40°F to +160°F)

## **Minimized Stress Risers**

Glass filaments are continuous, running from end to end of the leaf, providing enhanced strength

Actual product performance may vary depending upon vehicle configuration, operation, service and other factors.

All applications must comply with applicable Hendrickson specifications and must be approved by the respective vehicle manufacturer with the vehicle in its original, as-built configuration. Contact Hendrickson for additional details regarding specifications, applications, capacities, and operation, service and maintenance instructions.

#### Call Hendrickson or visit our global websites for additional information.

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