

# Daramic<sup>®</sup> EFS™

Daramic Enhanced Flooded Separator (EFS) is specifically designed to support start-stop vehicle battery work requirements, enabling battery manufacturers and automotive OEMs to deliver reliable battery power for users of start-stop vehicles.





# **Advantages**

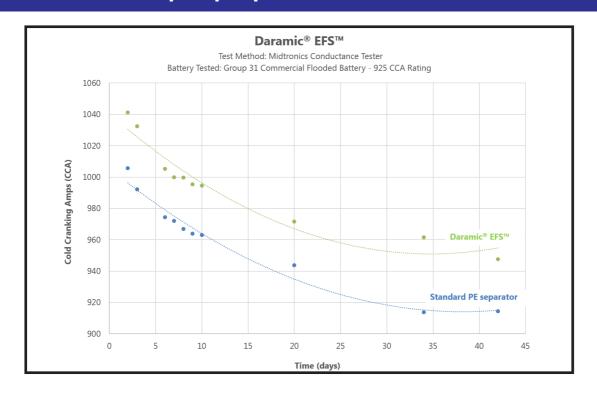
- Advanced polymer structure for improved electrical performance while maintaining superior strength
- Porosity increase up to 6% versus standard polyethylene separators
- Lower electrical resistance in the battery yields more power
- Reduces potential of falling below minimum voltage levels,
  which helps to maintain positive vehicle perception
- Optional feature for reduced water loss

#### **Benefits**

- 44% longer duration to minimum voltage versus standard separators at -16 °C
- On average after 30 days, maintains 4.4% higher battery power rating versus standard separators
- 25% reduction in separator electrical resistance (0.15 to 0.2 mΩ) results in lower battery internal resistance at -16 °C

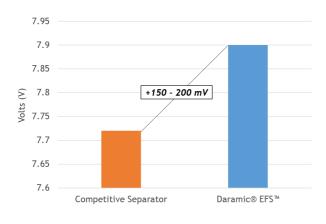


# Power output properties of Daramic<sup>®</sup> EFS™

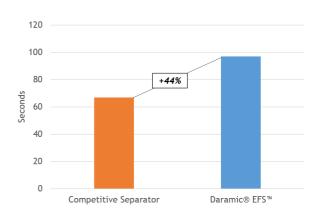


## Cold start (-16° C) competitive battery test results\*

Step 1: (V) 850A for 10 seconds



### Step 2: (seconds) 510A to 6 Volts



\*Battery Size: L2 Type: Enhanced Flooded Battery (EFB)



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