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**PRODUCT PROFILE**

## **Vydyne® XHT**

Extreme high-temperature  
PA66 compounds

Ascend's Vydyne® XHT is the clear choice for high temperature endurance. Vydyne XHT combines unique polymer chemistries with proprietary heat stabilization technology to provide a broad window of long-term high temperature performance up to 230C. Because it's a Vydyne product, XHT offers exceptional processability, durability and mechanical properties.



# Vydyne<sup>®</sup> XHT Series

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## Product features:

- Broad operating window: 170C to 230C
- Excellent flow for processing
- High temperature chemical resistance
- Excellent fatigue endurance
- Re grindable and recyclable

## Benefits:

- Reliable extreme heat-aging performance
- Excellent surface appearance
- High weld strength for intricate and integrated parts
- Critical dimensional stability for fluid-handling parts

## Applications:

- Charge air cooler end caps
- Charge air ducts
- Integrated air intake manifold
- Resonator
- Exhaust gas recirculator



## Vydyne R535XHT

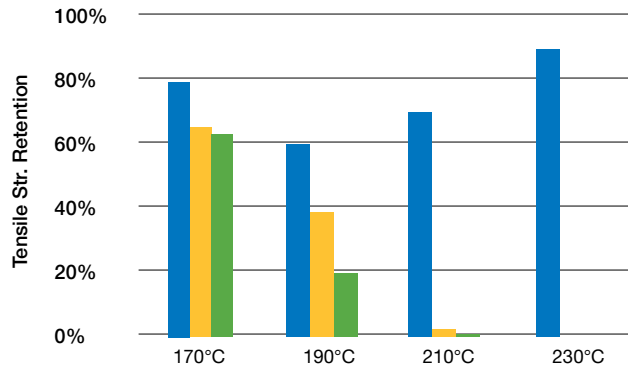
- Glass fiber reinforced PA66
- Proprietary multistage heat-stabilizing technology
- Over 70% property retention after 3,000 hours of heat aging at 210C
- Higher knit line strength

## Vydyne R550XHT

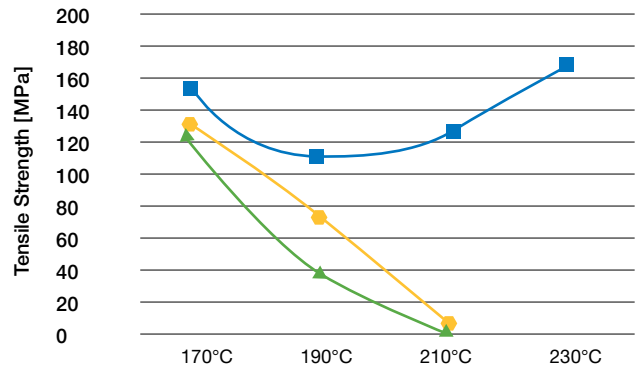
- Glass fiber reinforced PA66
- Proprietary multistage heat-stabilizing technology
- High stiffness and strength
- Maintains properties after exposure to high temperatures



### Property retention after heat aging (3000 hours)



### Tensile strength after heat aging (3000 hours)



■ R535XHT BK0761

● Improved Heat Stabilizer 35% GF PA66 A  
 ● Standard Heat Stabilizer 35% GF PA66 B

Product Characteristic	Test Method	Units	R535XHT	R550XHT
Density	ISO 1183	g/cm <sup>3</sup>	1.43	1.56
Tensile Strength	ISO 527-2	MPa	193	227
Tensile Elongation	ISO 527-2	%	3.4	3.0
Tensile Modulus	ISO 527-2	MPa	11,000	16,400
Flexural Strength	ISO 178	MPa	289	335
Flexural Modulus	ISO 178	MPa	11,000	15,100
Notched Charpy (23C)	ISO 179	kJ/m <sup>2</sup>	14	17
Notched Charpy (-30C)	ISO 179	kJ/m <sup>2</sup>	11	14
Unnotched Charpy (23C)	ISO 179	kJ/m <sup>2</sup>	90	97
Unnotched Charpy (-30C)	ISO 179	kJ/m <sup>2</sup>	83	110
Melting Temperature	ISO 11357-3	°C	262	259
DTUL (1.8 Mpa)	ISO 75-2/A	°C	230	253
DTUL (0.45 MPa)	ISO 75-2/B	°C	254	254

# About Ascend

Ascend Performance Materials makes high-performance materials for everyday essentials and new technologies. Our focus is on improving quality of life and inspiring a better tomorrow through innovation. We make the plastics, fabrics, fibers and chemicals used to make safer vehicles, cleaner energy, better medical devices, smarter appliances and longer-lasting apparel and consumer goods. We are committed to safety, sustainability and the success of our customers and our communities.

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For more information, contact our expert applications specialists or visit [ascendmaterials.com](https://ascendmaterials.com).

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