

The future of catalysis is here.

FlexCat™ by Unifrax is now available at commercial scale.

FlexCat is a high surface area alumina fiber substrate with a more tortuous path to allow for maximum catalyst interaction. Its custom-designed product form is able to meet end-user and process needs in ways impossible before.



Customized to meet end-user and process needs.

Property	Target
Alumina (%)	96
Silica (%)	4
Surface Area (m ² /g)	120–140
Specific Surface Area (m ² /m ³)	45,000
Pore Size (Å) (per fiber)	60–75
Pore Volume (cm ³ /g)	> 0.15
Median Fiber Diameter (µm)	4

Learn more about how FlexCat is revolutionizing catalytic media at unifrax.com/flexcat.

 **FlexCat**™
by Unifrax



Replacing pellet with fiber.

- 15x less mass vs. traditional forms
- Up to 50x more specific surface area (m²/m³) compared to traditional catalyst media
- High-alumina catalyst support
- Direct catalyst impregnation – no additional carrier needed
- Stable product form at temperatures > 1,000°C



More throughput.

- 4x more output seen in dehydrogenation reactions
- Starts converting carbon monoxide (CO) and volatile organic compound (VOC) emissions at approximately 180°C
- Tortuous path with greater surface area, resulting in increased feedstock interaction with catalyst
- Strong, durable catalyst adhesion throughout life cycle



Cleaner production and less downtime.

- 40% reduced regeneration time in dehydrogenation reactions compared to traditional processes
- Excellent resistance to deactivation and enhanced selectivity
- Up to 10x less weight due to modular product forms being faster and easier to load



Maximum plant yield with reduced carbon footprint.

- Reduced harmful byproducts – 5x less coke and benzene formation seen in dehydrogenation reactions
- Less downstream processing with improved paraffin-to-olefin ratio
- Lower temperature conversion of NO_x and CO
- dP controlled through custom-designed product form