



# CATALYST PROTECTION

Eurecat's Guardian™ products prevent premature shutdown due to pressure drop and catalyst poisoning.

The limitation of unit cycle length should always be activity of the main catalyst.

#### WHY GUARDIAN™?

- ✓ Complete portfolio of top layer catalysts with a variety of protective functionalities
- ✓ Extensive use of metals from recovered catalyst supporting a catalyst circular economy
- ✓ Superior mechanical properties



#### GUARDIAN™ IS

High density inert supports stabilize the bed and collect trash



# GUARDIAN™ CF

High void inert ceramic foams capture scale and particulates



### GUARDIAN™ AG

Active grading gently hydrogenates reactive species



# GUARDIAN™ DM/DSi/DAs

Trap inorganic catalyst poisons to extend main bed catalyst life

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GUARDIAN™ IS-11/13/19

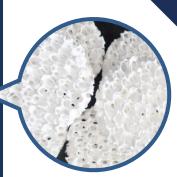
GUARDIAN™ CF-10/30/50/65/80

GUARDIAN™ AG-3R/5R

GUARDIAN™ DM/DSi/DAs

GUARDIAN™ AG-2.5T

HIGH ACTIVITY CATALYST







#### OPTIMIZED TOP LAYER SYSTEM DESIGN

Use a high-density, high-void fraction inert support to keep the catalyst bed stable below the distribution tray

Use ceramic foam of varying PPI to capture particulates entering with the feedstock

Maximum 2x change in catalyst diameter between layers

Analyze spent top layer catalysts to understand particulate and poison distribution for improved top layer design

Eurecat is the leading provider of products and services supporting a circular economy for catalysts

