Topsoe TK-BRIM® and HYBRIM™ catalysts

ReFRESH™ your catalyst

Prolong your unit cycle and reduce overall cost

Topsoe´s ReFRESH™ technology offers you the opportunity to use Haldor Topsoe catalysts twice for maximum economic benefit by reactivation of the catalytically active sites. Activity up to 95+ % of fresh catalyst is restored. The technology is commercially proven with more than 65 references and applicable for spent BRIM® and HyBRIM™ catalysts.

The ReFRESH™ technology is a specialized method of metal redistribution – available only from Topsoe production plants.

Why ReFRESH™ your catalyst?
As refiners deal with the demand for clean fuels with very low sulfur levels, catalyst longevity becomes an increasingly important factor. With the current high costs of metals, a full load of catalyst for a medium-to-large size hydrotreater unit represents a significant capital outlay. With the ReFRESH™ technology Haldor Topsoe offers the refiner new options and an opportunity for a more economic utilization of the procured catalyst.

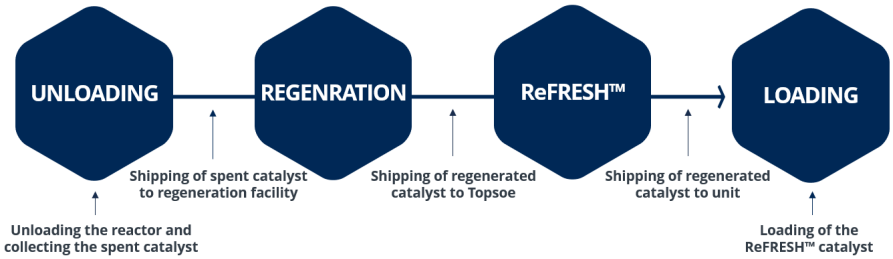
The ReFRESH™ approach
Once the catalyst has reached end of run, it can be removed from the reactor and subjected to the ReFRESH™ technology. This involves sending the catalyst for regeneration to remove any fines or debris and burn off the carbon and sulfur. Haldor Topsoe's BRIM® and HyBRIM™ catalysts will regain about 80-85 % (BRIM®) and 60-75% (HyBRIM™) of their original activity after a traditional regeneration. However, for many applications, that would not be enough to reuse the catalyst. Therefore, Haldor Topsoe can offer to treat the catalyst in our manufacturing plants, using our proprietary ReFRESH™ process which restores the activity to 95+ % (BRIM®) and 85-95+% (HyBRIM™) of fresh catalyst.

Advantages

- Prolongs the total cycle and reduces overall costs
- Commercially proven – more than 65 references
- Sustainable solution

Catalyst before Refresh™

Catalyst after Refresh™



The Refresh™ process

Catalyst state	Relative activity	Physical loss
Fresh	100%	-
ReFresh™	**BRIM® - 95% HyBrim™ - 85-95%**	**3-6 wt%**
Regenerated	BRIM® - 80-85% HyBRIM™ - 60-75%	3-5wt%
Spent	40-50%	-

Get in touch today
topsoe.com/contact

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