

Inert top layer media

Catalyst top layer media



All inert top gradings are developed to replace inert ceramic balls and alumina balls at the top of catalytic reactors, by increasing distribution properties and void fractions to extend cycle length of the units. The larger void fraction and different shapes allow better resistance against particulate deposition (solids such as rust, gum, coke, etc.) or top bed crust formation.

Applications

- » Naphtha Hydrotreating (NHT)
- » Distillate Hydrocracker (DHC)
- » Hydrodesulfurization (DHS)
- » Hydrodenitrogenation (HDN)

Benefits

- ✓ Improve flow distribution
- ✓ Reduce pressure drop built-up
- ✓ Better resistance against particulate deposition
- ✓ Protection at refinery upsets

Listed below an overview of the sizes on stock and specifications, sizes not mentioned in the tables are available on request. The mixture of clay can be adjusted to special requirements or demands in case of need.

Rest-O-Top® inert ceramic top layer wheels

The MTE Rest-O-Top® 55A is the main used inert top layer of MTE developed as a hold down media on the top of a catalyst bed. The shape gives a high void fraction and surface area compared to the conventional used inert ceramic balls or pressure drop compared to the conventional types.

The shape of the MTE Rest-O-Top® 55A also provides a better flow distribution due to its capacity to trap large particulates, which could foul the catalyst bed.



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Specifications

Dimensions		Weight	Min. crushing strength	
<i>inch</i>	<i>mm</i>	<i>kg/m³</i>	<i>kg</i>	<i>N</i>
13	950	490	58	> 350
19	900	380	60	> 500
25	850	290	62	> 700

Rest-O-Star® inert ceramic top layer fluted rings

The shape of the Rest-O-Star® inert ceramic top layer stars are also known for its high void fraction and therefore providing a lower pressure drop. Due to their fluted form, the Rest-O-Star® is recommended for preventing fouling of the catalyst bed, as it acts as a hold down media.



Specifications

Dimensions	Weight	Piece number	Min. crushing strength
<i>mm</i>	<i>kg/m³</i>	<i>pcs/m³</i>	<i>N/pcs</i>
11,5 x 15	1.100	378.000	1100
19 x 15	850	142.000	850

Rest-O-Disc® inert ceramic & high alumina top layer discs

Beside the benefit of a high void fraction and surface area, the Rest-O-Disc® inert ceramic disc layer, used as hold down layer media, saves energy as well. Due to its fine mesh, the discs trap particulates and prevent precious catalyst from fouling or upsetting.



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Specifications

Cells	Diameter	Height	Weight	Piece nr.
<i>mesh</i>	<i>mm</i>	<i>mm</i>	<i>g/piece</i>	<i>pcs/ m³</i>
25	48 ± 1	13 ± 0,5	25	33.000
40	48 ± 1	13 ± 0,5	25	33.000
50	48 ± 1	13 ± 0,5	25	33.000

Ceramic Raschig rings

The ceramic Raschig ring is one of the oldest packing shapes used in many absorption and distillation applications. It can be used as catalyst grading media to provide a lower pressure drop in comparison with the inert ceramic balls.

Nowadays, the ceramic Raschig ring is mainly used in special applications like acid or caustic scrubbers or other applications where the properties of the CRR still provide an advantage compared to the modern packing types.



Specifications ceramic rings

Dimensions	Weight	Surface area	Free volume
<i>mm</i>	<i>kg/m³</i>	<i>m²/m³</i>	<i>%</i>
5 x 5 x 1	920	1000	49
6 x 6 x 1,5	900	940	57
10 x 10 x 1,8	840	440	65
15 x 15 x 2	760	310	69
20 x 20 x 3	750	240	70
25 x 25 x 3,5	630	195	71
38 x 38 x 4	580	135	73
50 x 50 x 5	540	98	75
60 x 60 x 6	530	78	76
80 x 80 x 8	580	60	78

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Alumina Raschig rings

The alumina Raschig rings are produced with a content over 99.3 % of alumina. The product is mainly used in typical applications where the standard silica based ceramics spheres are not suitable due to ceramic resistance, temperature or mechanical strength.

Specifications alumina rings

Dimensions	Weight	Surface area	Free volume
<i>mm</i>	<i>kg/m³</i>	<i>m²/m³</i>	<i>%</i>
10	1600	440	65
16	1650	310	69
20	1250	240	70

For additional technical data, support or special requests, please contact our sales department.