

Ceramic rings

Ceramic packing



Ceramic rings have been widely used in many applications in heat transfer or absorption of acids.

The small sizes up to 8 mm are mainly used as catalyst support. Ceramic rings of 10 to 12 mm are also widely used in water filtration systems. Larger rings from 25 to 50 mm are normally used in acid scrubbers and mainly strippers with low gas flows. These rings can also be produced in high alumina material for additional temperature or chemical resistance.

Larger rings from 100 to 200 mm are often produced with a single wall or cross partition for mechanical strength.

Applications

- » Acid scrubbers and stripping columns
- » Caustic scrubbers
- » Water filtration (i.e. aquariums)
- » Support grid for ceramic random packing
- » Catalyst top layer media

Benefits

- ✓ High mechanical strength
- ✓ Low porosity
- ✓ High chemical resistance
- ✓ Wide variety of different sizes and designs for many applications
- ✓ Available in many different material qualities

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.

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

Specifications ceramic Raschig rings

Dimensions	Weight	Surface area	Free volume
<i>mm</i>	<i>kg/m³</i>	<i>m²/m³</i>	<i>%</i>
5 x 5 x 1,2	920	1000	49
6 x 6 x 1,5	900	940	57
10 x 10 x 1,8	810	440	65
15 x 15 x 2,5	760	310	69
20 x 20 x 3	750	240	70
25 x 25 x 3,5	630	195	71
38 x 38 x 4,5	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 % alumina. The product is mainly used in typical applications where the standard silica based ceramic spheres are not suitable due to chemical resistance, mechanical strength or temperature resistance.

Specifications alumina Raschig 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

Ceramic pall rings

Ceramic pall rings are executed with side openings which improves the separation efficiency and thus facilitate a more effective mass transfer. The pressure loss in the process is even further reduced due to moderate gas deflection. The capacity characteristics of the ceramic pall rings are more constant in comparison with the cylindrical rings, even over a broader load range.



Specifications

Dimensions	Weight	Surface area	Voidage
<i>mm</i>	<i>kg/m³</i>	<i>m²/m³</i>	<i>%</i>
25 x 25 x 3	620	220	75
38 x 38 x 4	540	165	78
50 x 50 x 5	555	120	78
80 x 80 x 8	520	80	79
100 x 100 x 10	500	55	81

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Ceramic rings with cross partition

The ceramic cross partition rings are used as a support media to support ceramic packing in acid environments where standard support grids cannot be used.



The dimension of the rings (cross openings) have to be selected based on the minimum packing size of the supported packing and the outer diameter based on the distance between the support beams underneath the rings. Different sizes of rings can be stacked to make a suitable support. Other executions or dimensions are also available for specific requirements.

Specifications

Dimensions	Weight	Piece density	Surface area	Voidage
<i>mm</i>	<i>kg/m³</i>	<i>pcs/m³</i>	<i>m²/m³</i>	<i>%</i>
100 x 100 x 10	910-950	1.000	60	54
150 x 150 x 15	1010-1050	294	87	57

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