

***IMPLAS* SDN BHD**

PALL RING



PALL RING

PLASTIC PALL RING

Overview

Pall Ring, an enhancement on Raschig Ring, forms one of the most common random packing and is generally used in gas and liquid transfers. Its improved design saves up packing volume by increasing surface area, boosting the performance of packing.

Pall Ring's open-wall design and cross-link structure not only allows lower pressure drop with greater capacity, but also enhances the distribution of gas and liquid. This innovation renders high mass transfer efficiency and improves the rate of separation.



Common Applications

Various kinds of separation, absorption, distillation, stripping, scrubbing, environmental applications, etc.

Features

- Lower pressure drop
- High mass transfer efficiency
- High flux and low resistance
- High liquid holdup
 - Increases absorption efficiency*
- High separation efficiency
- High operational flexibility
- Large production capacity
- High mechanical strength
 - Low breakage possibility*
 - Suitable for use in deep packed beds*
- Chemically resistant
- Temperature stability

Performance Data

Model	PR16	PR25	PR38	PR50	PR90
Dimension (Ø x H x T) (mm)	16 x 16 x 1	25 x 25 x 1.2	38 x 38 x 1.4	50 x 50 x 1.5	90 x 90 x 1.7
Free Space (%)	87	90	91	92	95
Specific Surface Area (m ² /m ³)	320	207	128	102	59
Number per Unit Volume (no/m ³)	214,000	49,300	15,200	5,960	1,100
Packing Factor	320	180	107	82	52
Specific Weight (kg/m ³)					
PP	110	69	52	45	42
PVC	165	107	82	70	56
Colours Available					
Black ■	✓	✓	✓	✓	✓
Natural □ (Translucent white)	✓	✓	✓	✓	✓

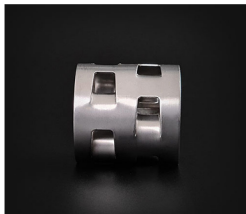
*Data given is for reference only. Specifications may vary depending on process parameters.

STAINLESS STEEL PALL RING

Overview

Stainless steel pall ring features a cylindrical structure made of thin metal sheet with punched out windows and inward bending tabs. This particular design greatly boosts performance of the packing, with not only minimal pressure drop, greater loading capacity, throughput, but also efficiency. Thus, they are excellent for applications at atmospheric pressure and under vacuum that require low pressure drop and also a high capacity. Its geometry also facilitates improved flow, contributing to better distribution and mass transfer efficiency of liquid and gas.

Stainless steel pall rings are versatile. They are easily wettable and have a high resistance to fouling and corrosion. Being mechanically robust, stainless steel pall rings are suitable for high temperature applications and also ideal for deeper beds.



Common Applications

Absorption, separation, steam stripping, direct contact cooling, quench towers, distillation columns, etc.

Features

- High loading capacity & throughput
- High mass transfer efficiency
- Low pressure drop
- Easily wettable
- High resistance to fouling
- High resistance against rust & corrosion
- High temperature
- High mechanical strength
- High chemical resistance

Performance Data

	Dimension (mm)	Free Space (%)	Number per m ³	Specific Surface Area (m ² /m ³)	Specific Weight (kg/m ³)	Dry Packing Factor m ⁻¹
PRS16	16 x 16 x 0.3	95.5	201,000	346	360	393.2
PRS25	25 x 25 x 0.4	96.2	51,000	212	302	229.8
PRS38	38 x 38 x 0.6	95.9	15,000	146	328	154.6
PRS50	50 x 50 x 0.8	96.4	6,500	108	315	130.5
PRS76	76 x 76 x 0.8	97.4	1,830	69	205	79.6
PRS90	90 x 90 x 1.0	97.1	1,160	62	229	66.2

*The above data is reference to material stainless steel (AISI304).

*Data given is for reference only. Specifications may vary depending on process parameters.

CERAMIC PALL RING

Overview

Ceramic pall ring is cylindrical in shape with windows along the walls and inward-bending tabs. This construction maximizes surface area of the packing and facilitates the free flow of vapour and liquid, which contributes to even liquid and gas distribution by efficiently utilizing the inner surface. Other than improved capacity, its design also ensures minimal pressure drop, improving separating efficiency.

Ceramic pall rings are inert, thus, resistant to corrosion from acid and alkaline. It has excellent heat endurance and performs well under both high or low temperatures. Ceramic pall rings are also non-porous and have high mechanical strength, suitable for deep beds.



Common Applications

- Absorption, stripping, cooling, washing, separating, desiccation, regeneration, etc.
- Petrochemical, chemical, metallurgy, gas and oxygen generation applications, etc.

Features

- Low pressure drop
- High mass transfer efficiency
- High capacity
- High separation efficiency
- High mechanical strength
- High chemical stability
- High temperature stability

Performance Data

Model	PRC25	PRC38	PRC50
Dimension (Ø x H x T) (mm)	25 x 25 x 3	38 x 38 x 4	50 x 50 x 5
Free Space (%)	73	75	78
Specific Surface Area (m ² /m ³)	210	140	100
Number per Unit Volume (no/m ³)	36,000	12,000	4,900
Specific Weight (kg/m ³)	630	590	520

Chemical Specification	SiO ₂	Al ₂ O ₃	Fe ₂ O ₃	Other
	65 - 85%	15 - 30%	<= 1.5%	5 - 15%

*Data given is for reference only. Specifications may vary depending on process parameters.

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