

Techim Ceramic Raschig Rings - CRS 23

Physical properties

Item	Value
Water absorption	<0.5%
Apparent porosity (%)	<1
Specific gravity	2.3 - 2.4
Operation temp.(max)	1000°C
Moh's hardness	>6.5 scale
Acid resistance	>99.6%
Alkali resistance	>85%



Chemical composition

Al ₂ O ₃	SiO ₂	Fe ₂ O ₃	CaO	MgO	K ₂ O + Na ₂ O	Other
17-23%	68-73%	<1.2%	<0.5 %	<0.5%	2-4 %	<2%

Dimension and other physical properties

Sizes (mm)	Thickness (mm)	Surface area (m ² /m ³)	Free volume (%)	Number per m ³	Approx. Bulk density (kg/m ³)	Packing factor m ⁻¹
16x16	2	305	73	192500	650	900
20x20	2-2.5	245	73	109000	640	836
25x25	3	185	75	47700	600	520
38x38	4-5	123	77	13700	560	280
50x50	5-6	92	77	5900	550	214
80x80	8-9	60	77	1400	535	120

CERAMIC PALL RINGS

ANNEAUX PALL EN CERAMIQUE

Chemical Composition

Al ₂ O ₃	SiO ₂	Fe ₂ O ₃	CaO	MgO	K ₂ O + Na ₂ O	Other
17-23%	>70%	<1.0%	<1. 0%	<0.5%	<3.5%	<1%

Physical Properties

Item	Value
Water absorption	<0.5%
Apparent porosity (%)	<1
Specific gravity	2.3-2.4
Operation temp.(max)	1100 °C
Moh's hardness	>7 scale
Acid resistance	>99.6%



Geometric Characteristic Data

Sizes Ø = H (mm)	Thickness (mm)	Surface area (m ² /m ³)	Free volume (%)	Number (per/m ³)	Bulk density (kg/m ³)
25	3	210	73	53000	580
35	4	165	76	13500	560
50	5	130	78	6300	540
80	8	80	81	1900	530
100 (*)	10	55	82	1000	450

(*) Systematic Arrangement on Pallet

CPR/GS-001 Rev 09 –06/17

Ceramic Saddles

Chemical analysis

SiO ₂	68-73%
Al ₂ O ₃	17-23%
Fe ₂ O ₃	<1.2%
CaO	<0.5%
MgO	<0.5%
K ₂ O+Na ₂ O	2-4%

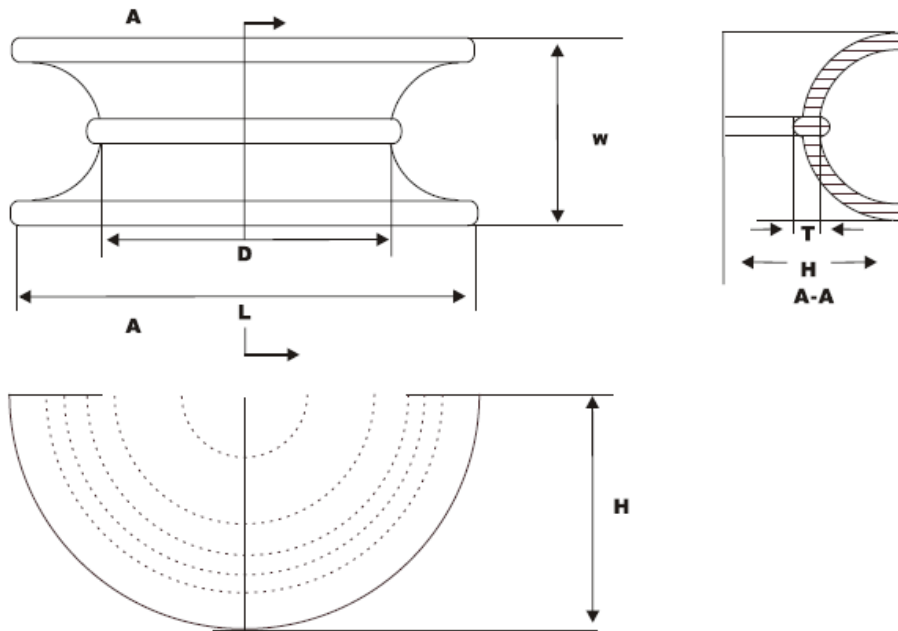


Physical properties

Nominal size(inch)	1/2''	3/4''	1''	1.5''	2''	3''
Package density (kg/m ³)	720	680	650	580	580	550
Free volume (%)	70	72	73	76	76	77
Surface area (m ² /m ³)	625	335	260	190	120	92
Specific gravity (g/cm ³)	~2.3 – 2.4					
Water absorption(%)	<0.3					
Acid resistance (%)	>99.6					
Max operating temp.	1100°C					
Porosity (%)	<1					
Moh's hardness (scale)	>6.5					
Thermal conductivity(w/m.k)	0.9-1.0					
Specific heat (j/kg°C)	850-900					

Ceramic Saddles

The drawing



Dimensions

Nominal Size	Alias DN	Diameter of Deck D	Outside Diameter L	Height H	Wall thickness T	Width W
1/2''	12	12±1.0	20±1.4	10±1.0	2.0±0.45	10±1.0
3/4''	19	19±1.5	28±2.0	14±1.0	2.5±0.5	15±1.0
1''	25	25±2.0	38±2.0	20±1.0	3.0±0.5	21±1.0
1.5''	38	38±2.0	60±3.0	29±1.5	4.0±1.0	32±1.5
2''	50	50±2.5	80±4.0	39±2.0	5.0±1.0	42±2.0
3''	76	80±4.0	118±4.0	60±3.0	9.0±1.0	62±3.0

Ceramic Single Partition Ring (Lessing ring)

Chemical analysis

Composition	Value
SiO ₂	>73%
Al ₂ O ₃	17-25%
Fe ₂ O ₃	<1.0%
CaO	<0.5%
MgO	<0.5%
K ₂ O+Na ₂ O	2-4%
Other	<0.1%



Physical Properties

Item	Value
Water absorption	<0.5%
Apparent porosity (%)	<1
Specific gravity	2.3-2.4
Operation temp.(max)	1100 °C
Moh's hardness	>7 scale
Acid resistance	>99.6%

Geometric Characteristic Data

Size mm	Average Thickness mm	Surface area m ² /m ³	Void Section %	Number Per m ²	Approx. Number Per m ³	Bulk Density (Kg/m ³)
100	8-10	80	63	108	1080	860
120	8-11	67	62	75	625	865
150	11-14	53	63	47	310	80
200	17-20	41	71	26	130	675

Ceramic Cross Partition Ring

Chemical Composition

Al ₂ O ₃	SiO ₂	Fe ₂ O ₃	CaO	MgO	K ₂ O + Na ₂ O	Other
17-23%	>70%	<1.0%	<1. 0%	<0.5%	2 - 4 %	<1%

Physical Properties

Item	Value
Water absorption	<0.5%
Apparent porosity (%)	<1
Specific gravity	2.3-2.4
Operation temp.(max)	1100 °C
Moh's hardness	>7 scale
Acid resistance	>99.6%



Geometric Characteristic Data

Size mm	Thickness mm	Surface area m ² /m ³	Void Section %	Number Per m ³	Bulk Density (Kg/m ³)
80	8	120	54	1950	916
100	10	110	53	1000	930
150	15	60	58	296	960