



## SPECIFICATION FOR CERAMIC SADDLES



### 1. PHYSICO-CHEMICAL PROPERTIES OF CHEMICAL PORCELAIN USED TO MANUFACTURE SADDLES

<u>Chemical Composition</u>	<u>% by Weight</u>
SiO <sub>2</sub>	65 – 75
Al <sub>2</sub> O <sub>3</sub>	20 – 25
Fe <sub>2</sub> O <sub>3</sub>	< 1
CaO	1 – 2
K <sub>2</sub> O + Na <sub>2</sub> O	2 – 4



# HONEYCOMBS CERAMICS B.V.

RTO Ceramic Media

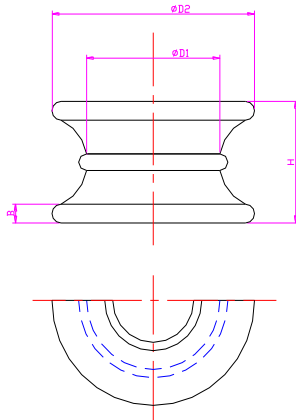


## Physical Properties

Specific Gravity	2.25 – 2.35
Water Absorption (ASTM C373)	< 0.5 %
Acid Resistance Strength Wt. Loss	< 1 % (ASTM C279)
Maximum Working Temperature	1100 °C
Specific Heat	0.25 Kcal/kg °C
Cold Crushing Strength	400 MPa

## 2. DIMENSION AND DIMENSIONAL TOLERANCES

	Dn	D	H	S
1/2"	12±1.5	21±2	12±1.5	1.8±0.5
5/8"	16±1.5	24±2	14±1.5	2±0.5
3/4"	19±1.5	33±2	18±1.5	2.8±0.5
1"	25±2	38±2.5	22±2	3.4±0.5
1 1/2"	38±2	60±3	30±2	4±1
2"	50±2.5	80±4	40±2	5±1
3"	75±3	114±5	57±3	8±1.5



Parallelism

< 2.0mm

Hemicycle

$180 \pm 10^\circ$

### 3. WEIGHT VARIATION

1/2" SADDLES: 750 to 790 Kg/m<sup>3</sup>

5/8" SADDLES: 730 to 770 Kg/m<sup>3</sup>

3/4" SADDLES: 710 to 750 Kg/m<sup>3</sup>

1" SADDLES: 680 to 720 Kg/m<sup>3</sup>

1 1/2" SADDLES: 610 to 650 Kg/m<sup>3</sup>

2" SADDLES: 580 to 620 Kg/m<sup>3</sup>

3" SADDLES: 540 to 580 Kg/m<sup>3</sup>



#### 4. VOID FRACTION

1/2" SADDLES: 67%

5/8" SADDLES: 68%

3/2" SADDLES: 69%

1" SADDLES: 70%

1 1/2" SADDLES: 72%

2" SADDLES: 73%

3" SADDLES: 75%



#### 5. SURFACE AREA:

1/2" SADDLES: 430 m<sup>2</sup>/m<sup>3</sup>

5/8" SADDLES: 410 m<sup>2</sup>/m<sup>3</sup>

3/4" SADDLES: 380 m<sup>2</sup>/m<sup>3</sup>

1" SADDLES: 260 m<sup>2</sup>/m<sup>3</sup>

1 1/2" SADDLES: 200 m<sup>2</sup>/m<sup>3</sup>

2" SADDLES: 120 m<sup>2</sup>/m<sup>3</sup>

3" SADDLES: 92 m<sup>2</sup>/m<sup>3</sup>



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## 6. VISUAL INSPECTION

- ~ Cracks in saddles: less than 1% per m<sup>3</sup>
- ~ Breakage saddles: Cracked saddles not to exceed 3% per m<sup>3</sup>
- ~ Color: Gray

## 7. QUALITY ASSURANCE TESTING PROCEDURE

~ All saddles shall be visually inspected to ensure that the requirements as detailed above, are met.

~ One cubic foot from each batch (50 Tons) shall be tested for Dimensional Tolerance, Weight Variation and Breakage Count.