



More than 1.5 billion substrates since 1974

Meet tomorrow's emissions standards today with our extensive portfolio of ceramic solutions. Optimized for high performance, efficiency, and flexibility, Corning's advanced ceramic substrates are designed to meet your most demanding gasoline and diesel system needs.

Product Information

Discover Advanced Solutions with Corning® Celcor® Substrates

- Best-in-class technical expertise from the company that pioneered cellular ceramic solutions and set the standard for catalytic converters worldwide
- Extensive product range to address tightening global standards
- Configurations and attributes that enable a wide range of after-treatment engineering solutions

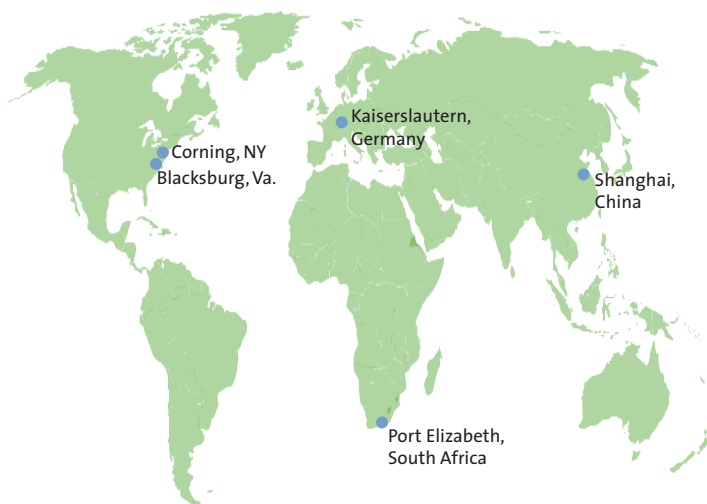
Product Highlights

- Innovative monolithic design with enhanced durability
- Promotes rapid light off: Low material density, low heat capacity, and high heat retention ability
- Highly resistant to thermal shock
- Flexible for designs requiring more surface area for same volume or lower pressure drop for same surface area

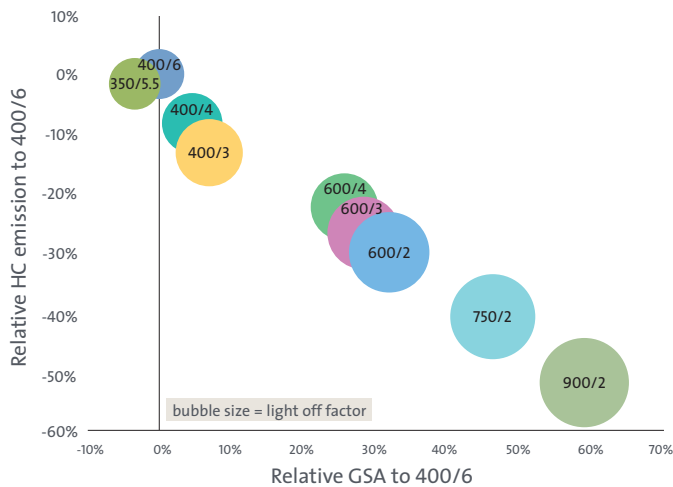
Product Attributes

Product cpsi/web	Bulk Density [g/L]	Open Frontal Area	Geometric Surface Area [cm ² /cm ³]	Heat Capacity 200° C [J K ⁻¹ L ⁻¹]	Hydraulic Diameter [mm]
400/6	395	0.757	27.4	352	1.11
350/5.5	317	0.805	26.4	283	1.22
400/4	279	0.828	28.7	166	1.16
400/3	220	0.865	29.3	131	1.18
600/4	324	0.800	34.5	193	0.93
600/3	267	0.836	35.3	159	0.95
600/2	223	0.881	36.2	132	0.97
750/2	248	0.868	40.2	148	0.86
900/2	271	0.856	43.7	161	0.78

Global Supply

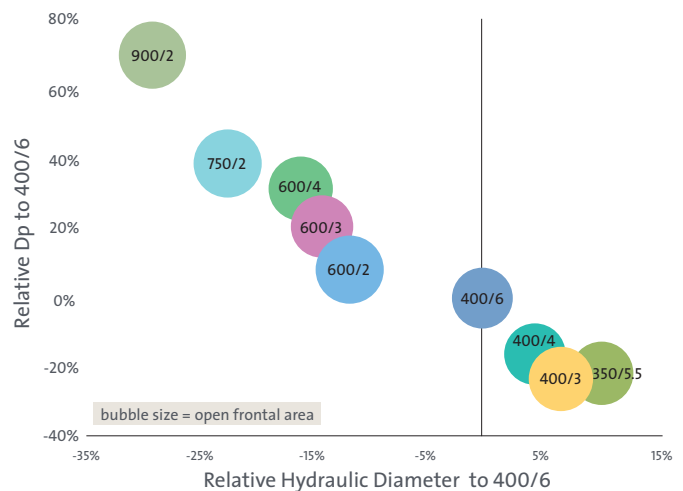


Modeled FTP HC Emissions / Geometric Surface Area



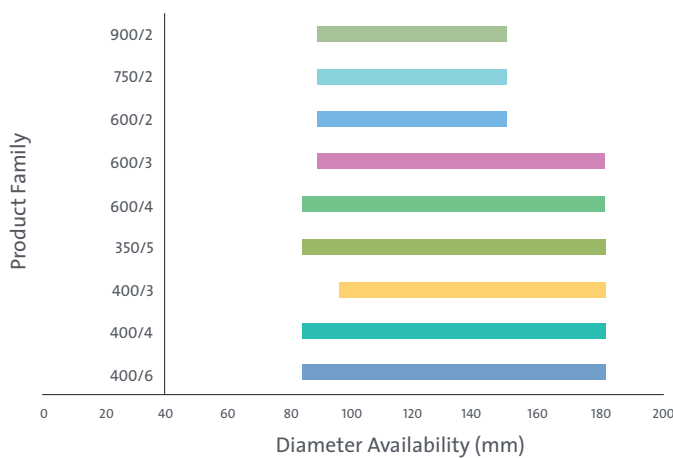
*Parts tested at size 105.7 x 76 mm

Back Pressure / Hydraulic Diameter

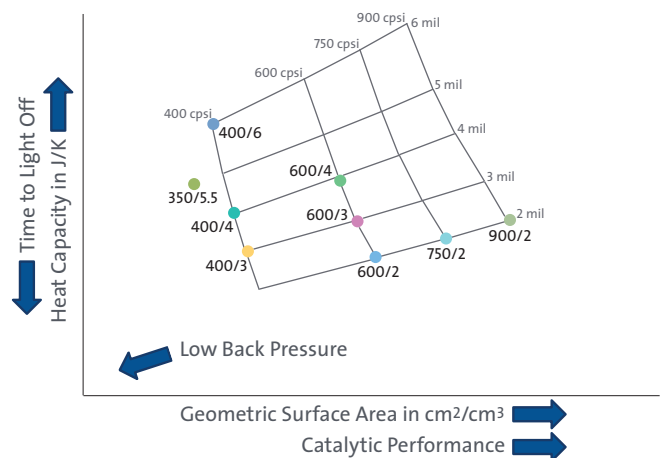


*Parts tested at size 105.7 x 76 mm; bp @ 200kg/h & 800C

Size Ranges (Countour / Diameter)



Heat Capacity / Geometric Surface Area



Notes

- FTP-75 Bag-1 emissions show a linear relationship with light off factor.
- Thinner webs enable better reduction of hydrocarbon emissions.
- Increased concentration of cell structure offers higher geometric surface area which drives emissions performance.
 - 900/2 has the highest geometric surface area, which enables the best steady-state performance.
 - 750/2 provides the ideal trade-off between emissions performance and pressure drop; limitations exhibited by 900/2 and 600/2
- Within cell family, reducing web thickness reduces the heat capacity, enabling faster light off and lower back pressure.

Discover Advanced Solutions with Corning® Celcor® Substrates

Contact us today to learn how Corning's extensive portfolio of advanced ceramic solutions can help you meet your most demanding system needs.

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The charts and graphs used in this publication are based on data from experimental and limited tests conducted under controlled laboratory conditions sponsored by Corning. Corning can provide additional calculations or test results based on specific operating conditions.

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