



CATALYST & ADSORBENTS SOLUTION

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High-Impact Catalysis **CM Catalyst**

Pioneering Excellence in Ceramic Products

CM Catalyst is a distinguished entity within the industrial landscape. operating as an ISO 9001:2015 certified company with a robust production capacity of 7000 MT per annum.

Today, we are a leader in the catalyst and refining industry because of expert customer care, a staff well grounded in the alumina and catalyst industries, exceptional management, and pursuits of innovative products and comprehensive services. We will continue to deliver the high-quality products and services that CM Catalyst is recognized for globally.

OUR VISION

At CM Catalyst, we envision becoming a global beacon of excellence, setting new benchmarks in the catalyst and refining industry. Driven by innovation and guided by unwavering integrity, our vision is to be recognized as the foremost provider of cuttingedge solutions that redefine industry standards.

INFRASTRUCTURE

The proficiency of our seasoned and qualified technical staff, coupled with their adept control over intricate processes, positions us to manufacture the highest quality tower packing and catalyst bed support media in the market. These products not only meet industry standards but also cater to the customized needs of a diverse range of industrial applications.



CM Catalyst Industry Certification recognizes professionals with advanced skills in quantum care ceramic technology, ensuring highquality ceramic production.



There are innumerable advantages of dealing with Quantum Care Industries. Some of them are being highlighted here.

Advancements in technology enable global communication and collaboration. It makes information and resources more accessible to people around the world.



Die cast forming ensures higher compressive strength and uniform shape.



Capacity to produce large quantities with committed delivery schedules.



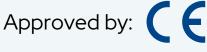
Dedicated to Ceramic Tower Packing for More than four Decades Experience.



This is obvious that Quantum Care is a mark of ultimate quality and reliability.

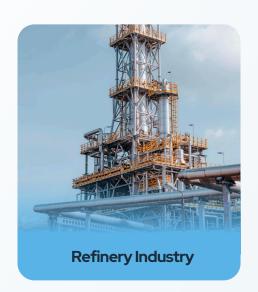
Empowering Industries

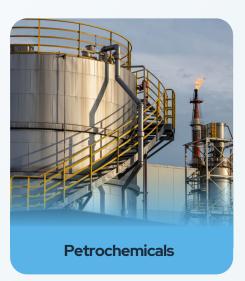
CM Catalyst's Flagship Subsidiary Sets the Standard

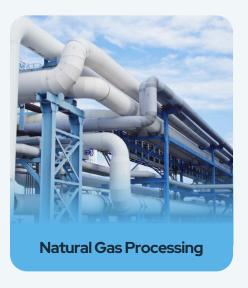


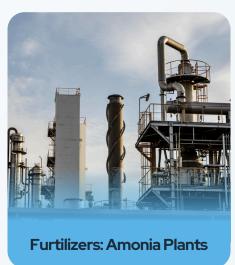


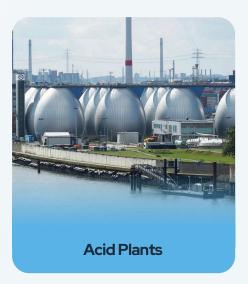


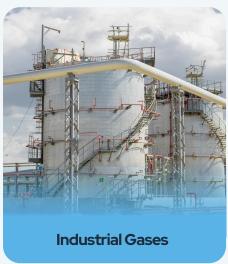














CMC-25[™] | CMC-50[™] | CMC-99[™]

CMC-25



CMC-25: Redefining Industry Standards

CM Catalyst Ceramic Balls exemplify exceptional quality. These ceramic balls boast low water absorption, exhibit 100% survival in rapid depressurization tests, showcase high crushing strength, superior impact resistance (drop test), remarkable thermal shock resistance (quench test), and minimal attrition loss.

Quantum Balls are having excellent quality

- **()** Low Water absorption
- 100% survival in Rapid Depressurization Test
- Inert towards liquid water
- High Crushing Strength
- Better Impact Resistance (Drop Test)
- Thermal shock resistance (Quench Test)
- > Very low Attrition loss

Ceramic Ball with different grade

- Ceramic ball Low purity Grade CMC-25[™]
 (19-26 % Al2O3)
- Ceramic ball Medium purity Grade CMC-50[™] (40-45 % Al2O3)

CMC-25TM

CMC-25



Chemical Analysis

	CMC-25
Al2O3	20 to 26 %
SiO2	65 to 72 %
SiO2+ Al2O3	> 92 %
K20	2.1 to 3 %
Na2O	1.3 to 1.8 %
CaO	0.5 to 1.1%
MgO	0.5 to 1.2 %
Fe2O3	0.4 to 0.8 %
Tio2	0.4 to 0.8 %
Leachable Iron	<o.1%< th=""></o.1%<>



Physical Analysis

	CMC-25
Apparent Porosity (By Volume)	<1%
Water Absorption (By weight)	0.4 % Max
Particle Density :(Material Piece Density) gm/cc	2.2 to 2.4
Working Temp	1000 oC
Roundness, dmax/dmin , mm	<1.25
Thermal Expansion Coefficient, 1/K	4.7 x 10-6
Spec. Thermal Energy, kj/(kg x k)	~ 0.84
Thermal Conductivity, $kj/(m x h x k)$	~ 6.3
Packing Density :(Weight of balls in one M3 Volume)	14010 +/- 30 Kgs OR1.36 to 1.45 Kg/L

CMC-25TM

CMC-25







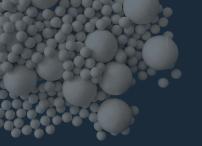
Crushing Strength (Point Load):Kgs/lbs/n

SIZE	SIZE RANGE		CMC-25	
SIZE	SIZE RAINGE	kgs	lbs	n
1/8" –3 mm	2 to 5 mm	>25	55	245
1/4" – 6 mm	5 to 8 mm	>65	143	637
1/2" – 12 mm	11 to 14mm	>180	397	1765
3/4" 19mm	17 to 21 mm	>430	948	4217
1" 25 mm	23 to 27mm	>650	1433	6374
1½"38 mm	34 to 40mm	>910	2006	8924
2" 50 mm	47 to 53mm	>1100	2425	10787



Average Ball Value

		VOID SPACE,%		VOID FRACTION	SURFACE AREA
		MIN MAX		%	AVG VALUE
1/8" – 3 mm	2 to 5 mm	42	45	0.425	1250
1/4" – 6 mm	5 to 8 mm	42	45	0.425	500
1/2" – 12 mm	11 to 14mm	42	45	0.425	280
3/4"–19mm	17 to 21 mm	42	45	0.425	170
1" 25 mm	23 to 27mm	42	45	0.425	125
1½″38 mm	34 to 40mm	42	45	0.425	85
2" 50 mm	47 to 53mm	42	45	0.425	45



CMC-50

CMC-50



CMC-50: High Purity Catalyst Excellence

CM Catalyst Ceramic Balls exemplify exceptional quality. These ceramic balls boast low water absorption, exhibit 100% survival in rapid depressurization tests, showcase high crushing strength, superior impact resistance (drop test), remarkable thermal shock resistance (quench test), and minimal attrition loss.

Quantum Balls are having excellent quality

- \(\) Low Water absorption
- 100% survival in Rapid Depressurization Test
- Inert towards liquid water
- High Crushing Strength
- Better Impact Resistance (Drop Test)
- Thermal shock resistance (Quench Test)
- (>) Very low Attrition loss

Ceramic Ball with different grade

- Ceramic ball Low purity Grade CMC-25[™] (19-26 % Al2O3)
- Ceramic ball Medium purity Grade CMC-50[™] (40-45 % Al2O3)

CMC-50TM

CMC-50



Chemical Analysis

CMC-50
45 to 52 %
45 to 55 %
-
2.1 to 3 %
0.5 to 1.5 %
0.5 to 1.5 %
0.5 to 1.5 %
1% Max
-
-



Physical Analysis

	CMC-50
Apparent Porosity (By Volume)	<1%
Water Absorption (By weight)	0.4 % Max
Particle Density :(Material Piece Density) gm/cc	2.4 to 2.6
Working Temp	1450 oC
Roundness, dmax/dmin , mm	<1.25
Thermal Expansion Coefficient, 1/K	4.9 x 10-6
Spec. Thermal Energy, kj/(kg x k)	~ 0.94
Thermal Conductivity, kj / (m x h x k)	~ 7.0
Packing Density :(Weight of balls in one M3 Volume)	1450 +/-30 Kgs OR1.42 to 1.48 Kg/L

CMC-50

CMC-50







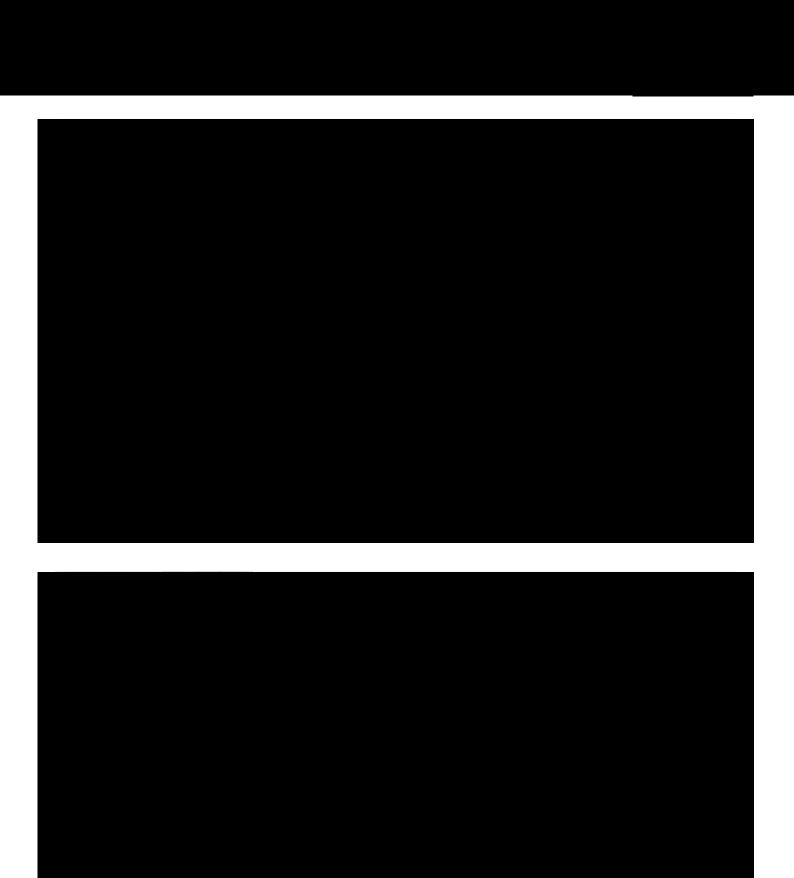
Crushing Strength (Point Load):Kgs/lbs/n

SIZE	SIZE RANGE		CMC-50	
SIZE	SIZE RAINGE	kgs	lbs	n
1/8" –3 mm	2 to 5 mm	>57	126	558
1/4" – 6 mm	5 to 8 mm	>113	249	1108
1/2" – 12 mm	11 to 14mm	>230	507	2256
3/4" 19mm	17 to 21 mm	>480	1058	4707
1" 25 mm	23 to 27mm	>700	1543	6865
1½″38 mm	34 to 40mm	>1000	2205	9807
2" 50 mm	47 to 53mm	>1200	2645	11768



Average Ball Value

		VOID SPACE,%		VOID FRACTION	SURFACE AREA
		MIN MAX		%	AVG VALUE
1/8" – 3 mm	2 to 5 mm	42	45	0.425	1250
1/4" – 6 mm	5 to 8 mm	42	45	0.425	500
1/2" – 12 mm	11 to 14mm	42	45	0.425	280
3/4"—19mm	17 to 21 mm	42	45	0.425	170
1″ 25 mm	23 to 27mm	42	45	0.425	125
1½″38 mm	34 to 40mm	42	45	0.425	85
2" 50 mm	47 to 53mm	42	45	0.425	45



CMC-99

CMC-99







Crushing Strength (Point Load):Kgs/lbs/n

CI7E	SIZE SIZE RANGE		CMC-99	
SIZE	SIZE RAINGE	kgs	lbs	n
1/8" –3 mm	2 to 5 mm	>75	165	735
1/4" – 6 mm	5 to 8 mm	>150	331	1471
1/2" – 12 mm	11 to 14mm	>300	661	2942
3/4" 19mm	17 to 21 mm	>600	1323	5884
1" 25 mm	23 to 27mm	>800	1764	7845
1½″38 mm	34 to 40mm	>1100	2425	10787
2" 50 mm	47 to 53mm	>1500	3307	14710



Average Ball Value

		VOID SPACE,%		VOID FRACTION	SURFACE AREA
		MIN MAX		%	AVG VALUE
1/8" – 3 mm	2 to 5 mm	42	45	0.425	1250
1/4" – 6 mm	5 to 8 mm	42	45	0.425	500
1/2" – 12 mm	11 to 14mm	42	45	0.425	280
3/4"—19mm	17 to 21 mm	42	45	0.425	170
1″ 25 mm	23 to 27mm	42	45	0.425	125
1½″38 mm	34 to 40mm	42	45	0.425	85
2" 50 mm	47 to 53mm	42	45	0.425	45



Contact information

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