

Honeycomb Ceramic Filter



Honeycomb ceramic filter has the characteristics: larger specific surface, high mechanical strength, and perfect heat-resistance performance. It is made from mullite, cordierite, refractory material, the main chemical composition is similar to that of impurities in molten iron, so it has a strong adhesive force to the impurities in molten iron, especially the tiny sundry goods. Impurities are adsorbed on the surface of straight hole honeycomb ceramic filter, which can effectively purify metal liquid and get rid of non-metal impurity and gas. Make the filling type of the metal liquid steady and reduce the swirl. Simplify the pouring system and improve the producing rate. Reduce the air vent of castings and optimize and thin out metal organization. Reduce the rejection rate of castings, reduce the surplus of processing. Raise the life span of the cutter and reduce casting cost.

Feature:

- 1、 Good strength and thermal shock resistance, reduce breakage during pouring process.
- 2、 Good filtration effects, it can remove impurities and improve the purity of molten metal.
- 3、 Make metallic liquid laminar steady, not turbulent flow, prevent air into the casting.

4、High -precision sizes, suitable for automatic production line, reduce the production cost.

Application:

Application:

Grey iron, ductile iron, aluminum alloy, stainless steel

Base on the case studying of domestic and international cast field in recent years, our factory adjust the prescription and innovate the technique to produce filters products series with different appearance specifications, wall thickness, hole type and aperture.

- Good thermal shock properties, not blowdown, not be collapsed
- Uniform round hole make when metal liquid go through, small eddy will not be produce, more conducive to change metal liquid from laminar to turbulence.
- Accurate extrusion die make product quality extremely stable and consistency.
- The same appearance ceramic filters, the openings rate of square hole's is exceeding 10% than round hole's.

1) Performance Index

Material	Al ₂ O ₃ (%)	Hole type(round/square)	Coefficient of thermal expansion($\times 10^{-6}/^{\circ}\text{C}$)	Softening temperature ($^{\circ}\text{C}$)	Compressive strength (MPa)
Cordierite	37	Round/Square	≤ 1.8	1390	≥ 12
Mullite	46		≤ 4.0	1550	≥ 15
Alundum mullite	70		≤ 5.5	1700	≥ 15

The customer may offer appearance, norms and size. We can also produce by joint-design and experiments.

2) Regular sizes and filtration capacity(1)

Size(mm)	Hole(mm)	Porosity(%)	Max filtration weight(kg)		Flow rate(kg/sec)	
			Grey iron	Ductile iron	Grey iron	Ductile iron
40x40	Φ 2.5	60	45-70	30-40	3-4	1-2
50x50	Φ 2.2	58	60-85	20-30	3-5	2-3
	Φ 2.5	60	80-100	25-50	5-6	3-4
55x55	Φ 2.5	61	85-150	30-74	6-10	3-5
60x60	Φ 2.5	60	120-210	45-90	8-12	4-6
66x66	Φ 2.5	61	140-250	48-95	9-13	5-7
75x75	Φ 2.5	61	160-280	55-100	11-14	7-9
80x80	Φ 2.5	61	250-330	60-120	12-18	8-14
100x100	Φ 3.0	62	300-388	158-205	20-25	13-16
125x125	Φ 3.0	62	320-550	200-400	28-35	15-20
133x133	Φ 3.8	63	750-960	250-550	40-60	35-55
150x150	Φ 3.8	63	800-1000	480-600	90-120	50-85
Φ 40	Φ 1.5	57	30-40	25-30	2-3	1-2
	Φ 2.5	59	35-65	30-40	3-4	2-3
Φ 50	Φ 2.5	60	55-80	35-45	2-5	2-4
Φ 70	Φ 2.5	60	70-100	50-65	6-12	4-7
Φ 80	Φ 2.8	61	75-110	70-90	10-16	9-12
Φ 100	Φ 2.5	60	100-250	95-150	18-22	10-15

Regular sizes and filtration capacity(2)

Size(mm)	Hole(mesh)	Max filtration weight(kg)			Flow rate(kg/sec)		
		Grey iron	Ductile iron	Aluminum	Grey iron	Ductile iron	Aluminum
37x37	100,300	35	25	15	3	2	2
40x40	100,300	40	30	20	4	2	2
43x43	100,300	55	50	30	4	2	2
50x50	100,200	70	58	40	6	4	3
55x55	100,200	80	67	47	9	5	4
60x60	100,200	85	75	55	10	6	5
66x66	100,200,300	95	90	62	12	8	6
75x75	100,300	150	119	85	14	9	7
81x81	100,300	200	174	122	18	12	9
Φ 30	100,200,300	35	25	16	3	2	1
Φ 34	200,300	40	29	20	3	2	2
Φ 40	100,200,300,400	43	32	28	4	2	2
Φ 50	100,200	50	40	30	5	3	2
Φ 60	100	60	58	40	9	4	3
Φ 70	100	70	65	52	12	5	4
Φ 80	100,300	85	78	63	15	8	5
Φ 90	100,200	100	90	78	18	10	7