

ABRASOR[®]

XC20 Series Preformed Bend Ceramic Hose



BUILT FOR
EXTREME WEAR.

The Next Level in Ceramic Hose Performance

Abrasor Ceramic Hose is designed for slurry applications where conventional rubber liners reach their practical limits. By combining high-density ceramic wear liners with a heavy duty rubber hose construction, Abrasor provides exceptional wear resistance while retaining the flexibility, impact absorption and installation benefits of rubber hose.

Our ceramic liners are selected to suit the severity and wear characteristics of each application, with options capable of achieving significantly greater wear life in highly aggressive slurry service. We only select the highest quality ceramic liners, and our bonding system guarantees a 100% adhesion level between the ceramic and rubber.

Manufactured in Australia under our ISO 9001 certified quality management system, every ceramic hose is built, inspected and tested to documented standards. With complete in-house manufacturing control, we can customise each hose around the application, including diameter, length, ceramic type, connection arrangement and overall construction.

The result is a flexible wear solution designed for the areas of a slurry system where abrasion is at its most severe.



Extreme Wear Protection

High density ceramic tiles provide exceptional resistance to severe sliding abrasion, significantly extending service life in high wear slurry applications.



Australian Manufactured

Every Abrasor Ceramic Hose is manufactured under our ISO 9001 certified quality system, giving us complete control over construction, inspection and final quality.



100% Ceramic Adhesion

Our controlled bonding system creates complete adhesion between the ceramic liner and surrounding rubber, helping prevent tile movement and maintain liner integrity.

XC20-SERIES

PREFORMED BEND CERAMIC HOSE



Abrasor XC20 Series Preformed Bend Ceramic Hoses are designed for the most severe slurry transfer applications where maximum wear life, flexibility and reliability are essential. By combining the exceptional hardness and abrasion resistance of ceramic with the flexibility and impact absorption of rubber, Abrasor ceramic hoses delivers outstanding performance in applications where conventional ceramic lined pipe or rubber hose reaches its limits.

Manufactured using our exclusive Abrasatech wear liner technology, each hose can be customised with premium ceramic materials to suit the specific wear characteristics of the application. Manufactured in Australia, Abrasor Ceramic Hose is ideally suited to cyclone underflow, pump discharge, mineral processing plants, tailings pipelines, dredging operations and other severe duty slurry applications where maximum service life is critical.



TECHNICAL SPECIFICATIONS

Hose size	DN25 – DN1200
Tangent Length	Up to 3mt one end
Bend Angle	30°, 45°, 60°, 90°, Custom
Pressure rating	-100kPa - +5000kPa
Ceramic Adhesion Level	100% Rubber Tear
End connections	Plain Swivel flange(beaded) Fixed flange Flanged spigot (swivel or fixed) Victaulic spigot (shouldered, roll grooved, cut grooved) Threaded Raised Cuffed Custom
Flange patterns	AS2129, ASME B16.5, ASME B16.47, AWWA C207, AS4087, BS EN 1092, BS 3293, JIS B2220, SANS 1123, DIN ISO 7005, custom
Safety factor	4:1
Temperature rating	-30 to +80 (ABRASATECH)
Optional extras	Anti-static wire Wear monitor ID tagging

MATERIAL SPECIFICATIONS

Ceramic Liner	92% Alumina (standard) 95% Alumina 99% Alumina ZTA - Zirconia Toughened Alumina YTZ - Zirconium Oxide SiC - Silicon Carbide
Secondary Liner	ABRASATECH (for general high wear slurry) QUARRYTECH (for fine sands slurry) ROCKTECH (for large rock slurry)
Reinforcement	Spiralled synthetic fabric Wire helix
Outer cover	ABRASATECH (for abrasion and UV resistance) NEOTECH FRAS (for FRAS or oily environments) FLOWTECH (for extreme UV or seawater)
Connection material	Hot dipped gal (as standard) Stainless steel (SS316, SS304) Carbon steel Painted Custom

HOSE TECHNICAL PROPERTIES

HOSE SIZE		STANDARD CERAMIC THICKNESS	MAX CERAMIC THICKNESS	VACUUM RATING	STANDARD WORKING PRESSURE		MAX WORKING PRESSURE		SAFETY FACTOR	STANDARD CENTRELINE RADIUS		
DN	mm	mm	mm	%	kPa	PSI	kPa	PSI	Ratio	1.5D (mm)	3D (mm)	5D (mm)
50	50.8	4	4	100	1000	145	5000	725	4:1	75	150	250
80	76.2	4	6	100	1000	145	5000	725	4:1	120	240	400
100	101.6	4	6	100	1000	145	5000	725	4:1	150	300	500
125	127	4	6	100	1000	145	5000	725	4:1	187.5	375	625
150	152.4	4	6	100	1000	145	5000	725	4:1	225	450	750
200	203.2	4	6	100	1000	145	5000	725	4:1	300	600	1000
250	254	4	12	100	1000	145	5000	725	4:1	375	750	1250
300	304.8	4	12	100	1000	145	4000	580	4:1	450	900	1500
350	355.6	4	12	100	1000	145	4000	580	4:1	525	1050	1750
400	406.4	4	12	100	1000	145	3000	435	4:1	600	1200	2000
450	457.2	4	12	100	1000	145	2500	363	4:1	675	1350	2250
500	508	4	12	100	1000	145	2500	363	4:1	750	1500	2500
550	558.8	4	12	100	1000	145	2500	363	4:1	825	1650	2750
600	610	4	12	100	1000	145	2500	363	4:1	900	1800	3000
650	660.4	4	12	100	1000	145	2000	290	4:1	975	1950	3250
700	711.2	4	12	100	1000	145	2000	290	4:1	1050	2100	3500
750	762	4	12	100	1000	145	2000	290	4:1	1125	2250	3750
800	812.8	4	12	100	1000	145	2000	290	4:1	1200	2400	4000
850	863.6	4	12	100	1000	145	2000	290	4:1	1275	2550	4250
900	914.4	4	12	100	1000	145	2000	290	4:1	1353	2700	4500
950	965.2	4	12	100	1000	145	2000	290	4:1	1425	2850	4750
1000	1016	4	12	100	700	102	2000	290	4:1	1500	3000	5000
1050	1066.8	4	12	100	700	102	2000	290	4:1	1575	3150	5250
1100	1117.2	4	12	100	700	102	2000	290	4:1	1650	3300	5500
1150	1168.4	4	12	100	700	102	2000	290	4:1	1725	3450	5750
1200	1219.2	4	12	100	700	102	2000	290	4:1	1800	3600	6000

CERAMIC TECHNICAL PROPERTIES

MATERIAL	DENSITY	IMPACT RESISTANCE	VICKERS HARDNESS	ABRASION LOSS	WEAR LIFE	CRACK RESISTANCE
	g/cc3	Mpa m1/2	Hv20	Cm3	vs 92%	vs 92%
92% Alumina	3.6	3.70	950	0.25	1.0x	1.0x
95% Alumina	3.77	4.10	1150	0.16	1.6x	1.1x
99% Alumina	3.83	4.20	1200	0.10	2.5x	1.1x
ZTA	4.10	4.50	1350	0.05	5x	1.2x
YTA	4.10	7.50	1350	0.05	5x	2.0x
SiC	3.10	3.0	2000	0.02	12.5x	0.8x

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