



Allied Welding Systems

Superior Quality. Superior Value. Superior Services.

WEAR LININGS



800-782-3134

www.AlliedWeldingSystems.com



Allied Welding Systems

ALLIED HIGH DENSITY ALUMINA/SILICON CARBIDE

Linings prevent abrasive wear in conveying, processing and pneumatic transport lines, made from high purity, fine grain, alpha aluminum oxide.

- ▶ Configurations in thickness as low as 1mm
- ▶ Effectively handles severe abrasion in elbows
- ▶ Over 90% aluminum oxide, isopressed and sintered for maximum performance
- ▶ Highly wear resistant through smooth surface that lasts; no corrosion
- ▶ Multiple attachment methods such as welding, epoxy adhesives and vulcanization processes
- ▶ Formed in variety of configurations: mosaic patterns, brick tiles, wall cylinder inserts in custom engineered wall thicknesses and diameter

ALLIED HIGH DENSITY SILICON CARBIDE CERAMIC

Linings provide tremendous wear life in conveying processing and pneumatic transport lines.

- ▶ Configurations in thicknesses as low as 2mm
- ▶ Silicon nitride bonded
- ▶ Resistant for extreme wear, thermal shock, and high temperature resistance

Applications

PNEUMATIC ELBOWS

*Allied Welding Systems is capable of fabricating custom engineered transport elbows from **Allied High Density Alumina Ceramic** in a variety diameters, angles, and centerline radiuses that will exponentially outlast traditional **ASNI Sch. 40, Sch. 80 steel piping**, in permitting applications, **Allied Welding Systems** specializes in “smoothbend” elbows, through wall cylinder **Alumina Ceramic** inserts inside of steel Piping.*

Smoothbend design will outlast segmented elbow design as material will not channel in targeted segment area.



CERAMIC-RUBBER HOSES

*Allied Welding Systems is capable of fabricating custom ceramic and rubber lined flex hoses, in diameters from 1" up to 12" and in lengths of 39' with correlating mini-bend radii. **Alumina Ceramic** is lined inside vulcanized rubber (60+ durometer) and can be flanged per customer request. Exceptional performance in admix lines, vibratory/non-stationary equipment. etc.*



- 60+ durometer
- EDPM Rubber
- Maximum operating temperature of 194° F/ 90° C



ALLIED WELDING SYSTEMS CER-RUB FLEX HOSE

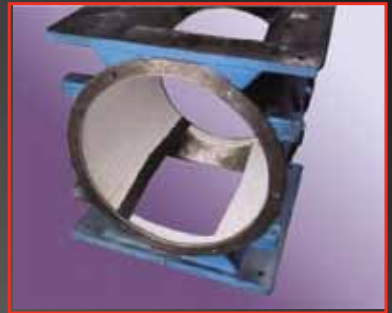
SPEC SHEET

Temperatures Rating Up to 194°F/90°C

Item	DN	Internal Diameter Inches	External Diameter Inches	Mini Bend Inches	Rubber	Approx- Weight lb/Foot
1	(1")	1.00	1.65	19.69	EPDM	1.4
2	(1¼")	1.25	1.97	25.20	EPDM	1.6
3	(1½")	1.50	2.20	29.92	EPDM	1.8
4	(2")	2.00	2.83	40.16	EPDM	2.6
5	(2½")	2.50	3.70	53.54	EPDM	3.3
6	(3")	3.00	4.13	59.84	EPDM	3.6
7	(3½")	3.50	4.72	74.80	EPDM	4.3
8	(4")	4.00	5.51	80.32	EPDM	5.3
9	(5")	5.00	6.30	96.85	EPDM	7.3
10	(6")	6/00	7.48	119.69	EPDM	10.7
11	(8")	7.87	9.25	149.61	EPDM	10.7
12	(10")	9.84	11.42	192.91	EPDM	13.4
13	(12")	11.81	13.78	235.43	EPDM	17.4

CERAMIC LINED ROATARY AIRBLOCKS

Allied Welding Systems specializes in the repair and retrofitting of Airlocks and Feeders with ceramic and tungsten carbide linings or thermal spray coatings.



ALLIED HIGH DENSITY BASALT

is custom engineered for friction-based abrasion, at 1" wall thickness, Allied Basalt offers approximately the same wear life applications of Allied Ceramics for a fraction of the cost. Allied Basalt is produced by melting volcanic rock, then casting into shaped tiles or cylinders, and annealing at carefully controlled temperatures to attain the desired hardness.

- *Highly effective in hydraulic & pneumatic conveying systems*
- *Cast basalt linings can be used up to temperatures of 350°C/662°F*
- *Available in tiles and cylinders*

Installation of cylinders or shaped components is via cement mortar. In special cases epoxies or synthetic mortars may be used due to strong mechanical stresses and/or vibration. Where higher temperatures are concerned, potassium silicate mortar may be used for installation.

Applications

STRAIGHT SECTION PIPE

Allied Welding Systems suggests its high density basalt in straight section pipe in both wet and dry applications, as an economically feasible solution in tangent applications off elbows, ranging from 1" diameter up to 24" and up to 20 foot lengths.



PNEUMATIC ELBOWS

Allied Basalt can also be lined inside of segmented transporting elbows as a feasible solution between ANSI carbon steel pipe and Allied Ceramic elbows.





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