

TECHNICAL DATA SHEET

ELASTOCER – Rubber Ceramic Wear Plate (92% Alumina)

Custom rubber + ceramic anti-wear liner

1. Description

ELASTOCER is an anti-wear lining combining a resilient rubber matrix (60–65 Shore A) with 92% alumina ceramic (Al₂O₃). The solution is designed to extend the service life of areas exposed to abrasion and impact, while also reducing noise and maintenance requirements.

2. Key Advantages

- Very high abrasion resistance (92% alumina ceramic).
- Impact absorption and noise reduction (rubber matrix).
- Custom-made solutions: dimensions, thickness, fastening method and geometry.
- Installation is possible by bonding, bolting or weld-stud fastening.

3. Construction and Options

Element	Options / notesptions / notes
Ceramic:	Alumina 92% (Al ₂ O ₃). Shapes: cylinders, square/rectangular tiles, hex (depending on the application)).
Rubber	Natural or SBR, typical hardness 60–65 Shore A (other hardness possible on request).
Backing:	Steel plate (thickness as needed: e.g. 1/4" and +).
Fastening:	Gluing, bolting, weldable threaded rod (Nelson) or combination, depending on accessibility and safety.
Fastening:	Custom-made: panels, segments, special shapes, holes, chamfers and reinforced areas.

4. Available shapes and sizes (selection guide)

The choice of the shape and size of ceramic depends on the dominant wear pattern:

- Dominant Impact: Rods/Cylinders (Better Energy Absorption and Impact Toughness).
- Dominant Slip Abrasion: Tiles (Uniform Surface, Excellent Friction Resistance).
- Curved surfaces or transitions: small tiles or hex (better conformity).

Examples of common (custom-made) ranges:

- Tiles: small (10–25 mm), medium (25–50 mm), large (50 mm+).
- Rods/cylinders: diameters available depending on the overall thickness (e.g. ~10–20 mm, ~20–30 mm, ~30–40 mm).
- Total liner thickness: adjusted according to abrasion/impact and installation constraints.

5. Typical applications

- Chutes and chutes (chute liners), hoppers (hoppers), feed boxes.
- Crusher feeding areas: tubes, plates, hoppers, main frame liners.
- Launderers, rotary distributors, discharge liners.
- Applications in mining, aggregates, handling of abrasive materials, slurry pastes.

6. Technical Properties – Ceramic (92% Alumina)

Ceramic Attribute	Unit	Value (92% alumina)
Alumina Content (Al ₂ O ₃)	%	92
Density	g/cc	≥ 3.60
Color	-	White
Water Absorption	%	0
Flexural Strength	MPa	270
Moh's Hardness	Grade	9
Rockwell Hardness	HRA	80
Vickers Hardness (HV)	kg/mm ²	1000
Fracture Toughness	MPa·m ^{1/2}	3–4
Compressive Strength	MPa	850–1100
Thermal Expansion Coefficient	1×10 ⁻⁶ /°C	7.6
Maximum Operation Temperature	°C	1250

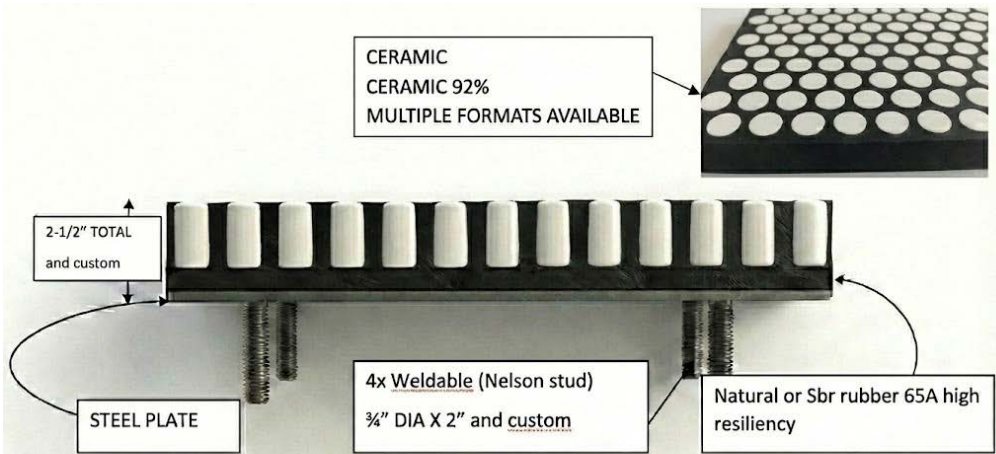
7. Technical Properties – Rubber (Typical Values)

Density (gravity) : 1.12 g/cc

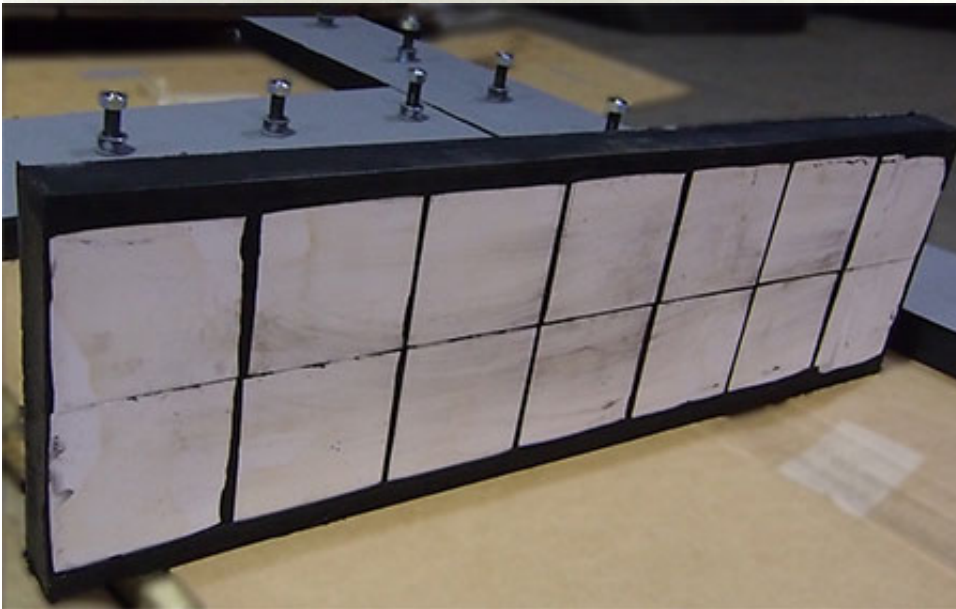
ASTM	Property	Unité	Spécification	Résultat
D2240	Hardness	Shore A	65 ±5	66
D412	Tensile	psi	2500	2803
D412	Module 300%	psi	N/A	1465
D412	Elongation	%	400 min	509
D573	Heat Aging (70 h @ 100°C) – Hardness variation	pts	+10	+2
D573	Heat Aging (70 h @ 100°C) – variation tensile	%	-25	-10
D573	Heat Aging (70 h @ 100°C) – Elongation variation	%	-25	-20
D395B	Compression set (22 h @ 70°C)	%	25	14
D1171	Ozone resistance	70 h @ 50 pphm	no cracks	pass
D624C	Tear (C)	pli	N/A	295
D2137	Cold Temperature	°C	-40	pass
DIN 53516	Abrasion	mm ³	N/A	89

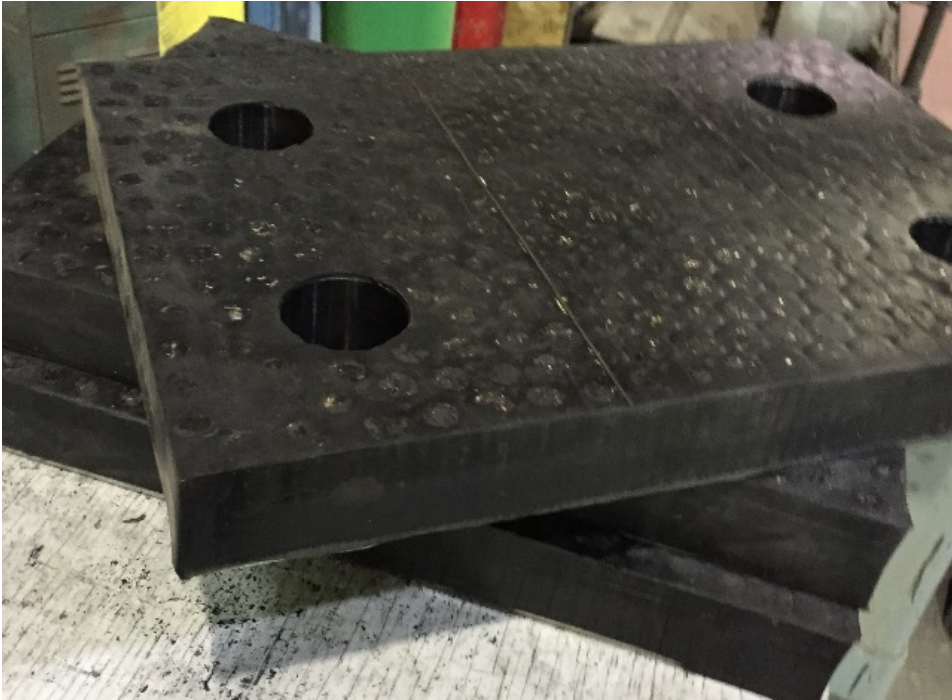
8. Configuration Designs (Indicative)

**Configuration whit Cylinder
(impact + abrasion) Fastening
with threaded rod:**



**Configuration with tiles (slip
abrasion) :**





Configuration with cylinder (impact + abrasion) bolt-in type attachment

9. Notes

The above properties are provided as a guide and may vary depending on the configuration (ceramic shape/dimension, thickness, type of rubber, fastening method). For optimal selection, provide material conveyed, particle size, flow rate, angle of fall, speed, temperature, chemistry and installation constraints.