

HardGlide

ewac

EWAC HardGlide
World's Most Wear Resistant
Cast-O-Fuse Plate

EWAC Alloys Limited

About EWAC:

EWAC Alloys Limited, pioneer in providing solutions to preventive maintenance and repair of industrial machinery. With more than five decades of experience, we offer unrivalled savings by providing solutions to wear-related problems. In India, EWAC holds leadership position as a total welding solution provider for reclamation of industrial components.

Dr. Rene Wasserman Centre, a fully equipped state-of-the-art manufacturing facility at Ankleshwar (Gujarat). The company is engaged in manufacturing of Special Welding

Electrodes, Gas Brazing Rods and Fluxes, Atomised Metal Powder Alloys, Flux-Cored Continuous Wires, Polymer Compounds & Wear Resistant Plates.

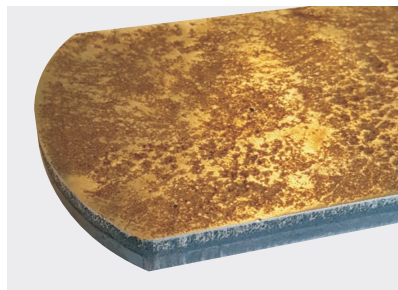
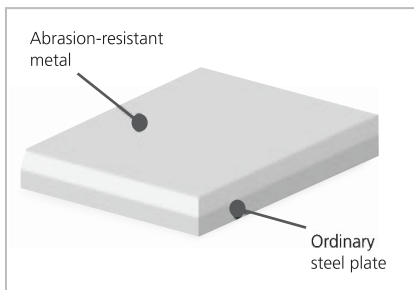
The plant is certified by ISO 9001:2015 Quality Management System, ISO 14001:2015 EMS system and ISO 18001:2007 OHSAS.

About EWAC HardGlide:

EWAC HardGlide is the world's most revolutionary wear resistant Cast-O-fuse overlay plate. The presence of extra high density and ultra-abrasion resisting alloy with unique blend of toughness and hardness provides high resistance to Abrasion, Erosion and Impact.

The unparalleled smooth surface is practically free from cracks, ripples and strains which allows a laminar flow of material and prolongs the component life.

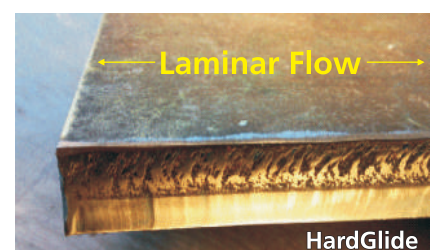
Extra low coefficient of friction ensures 200-600% efficiency improvement in wear resistance over conventional weld cladded composite wear plate which offers exceptional reduction in hang-up and carry-back.



- Unmatched wear resistance
- Best in cost-economics
- Improved safety
- Greener environment

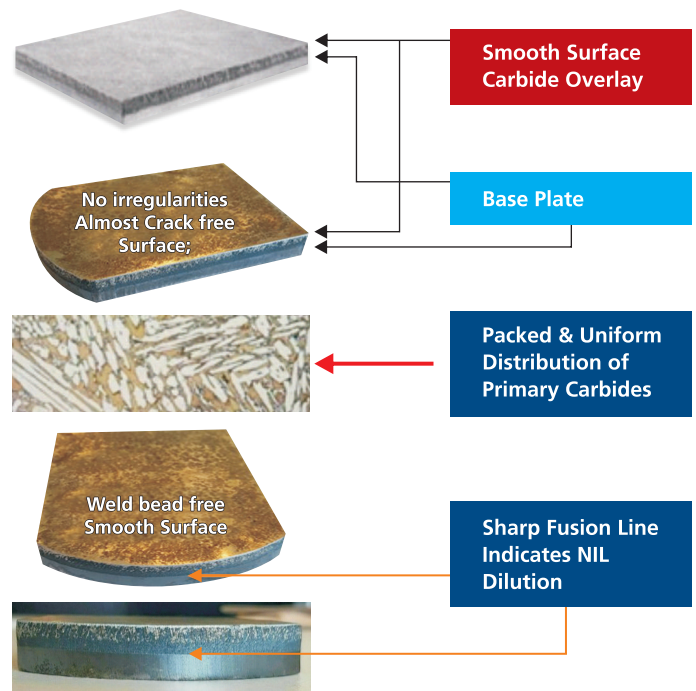
Benefits of EWAC HardGlide:

- Uniform surface hardness and carbide distribution are all critical to overall performance.
- Uneven material surface causes micro-turbulence on the product and can accelerate the wear rate of the material.
- Weld beads on bulk weld overlay plate generates turbulence leading to premature and costly failure of the wear liner.
- With no weld beads, EWAC HardGlide allows a laminar flow of the product thereby greatly reducing wear rates.
- Generally, a rough surface finish will accelerate wear anywhere from 200 to 600% in comparison to a smooth surface of the same alloy structure and hardness.
- Minimal hairline cracks: gives low residual stress, ease in rolling and fabrication.



Features of EWAC HardGlide:

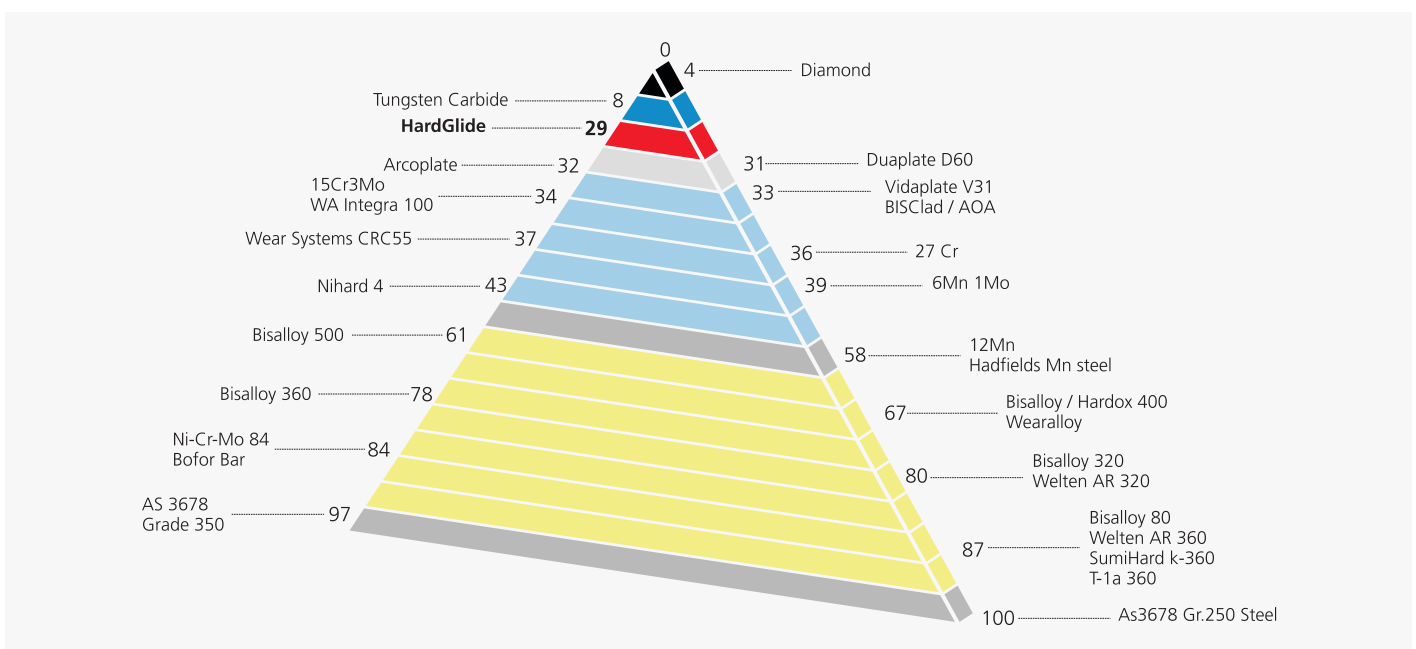
- Smooth Surface Finish:
 - Low Co-efficient of friction (23% less than SS in service)
 - Reduced hang-up
- No Weld Beads:
 - Max Wear Resistance irrespective of direction of flow of abrasive particles
 - Laminar flow ensuring reduced wear
- Uniform Fusion Line:
 - Negligible Dilution
 - Consistent Hardness & Micro-structure resulting in consistent & unmatched wear rates
- Minimal Surface Relief Cracks:
 - Low Residual Stress (Overlay & backing plate)
 - Ease in Rolling & Fabrication



EWAC HardGlide Grades & Performance:

Grade	FA - M3	FA - M7
	High Abrasion & Moderate Impact (<6000C)	High Abrasion & High Impact (<8500 C)
Alloy System	Fe-Cr-C	Fe-Cr-Mo-V-C
Hardness (Bulk)	56 - 62 HRC	60 - 65 HRC
Microstructure	Uniform microstructure with primary and eutectic carbides throughout thickness ~ upto 70% of total volume	Uniform microstructure with primary and eutectic carbides throughout thickness ~ upto 70% of total volume

60% of earth's crust is made up of Silica & Quartz : Hardness ~ 800Hv
 Quench & tempered carbon steel : Hardness ~ 300 - 500 Hv
 HardGlide carbide hardness : Hardness ~ 1600 Hv



EWAC HardGlide Dimension:

Grade	FA - M3	FA - M7	*Note: Dimension for (3+3) mm Plate - 2000mm x 800mm, (4+4) mm Plate - 3000mm x 1000mm
Dimension	3000mm x 1200mm*	3000mm x 600mm	
Hardness	55 - 62 Hrc	60 - 65 Hrc	

EWAC HardGlide Thickness Range:

FA - M3 Thickness Range

Overlay (mm)	3	4	4	6	6	8	9	12
Backing Plate (mm)	3	4	6	6	8	8	10	12

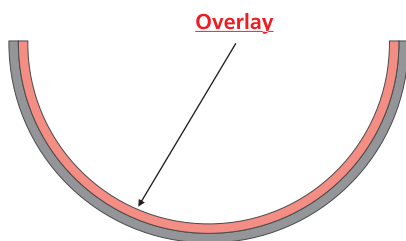
FA - M7 Thickness Range

Overlay (mm)	3	4	4	6	6	8	9	12
Backing Plate (mm)	3	4	6	6	8	8	10	12

** Non Standard plate dimensions: 620 mm x 3000 mm

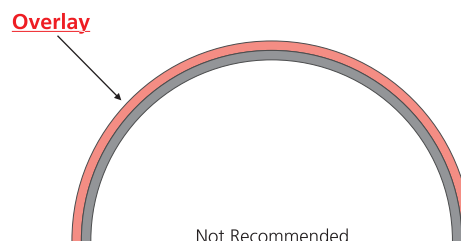
Note: Customized alloy specifications and plate size thicknesses are available on request Non-Magnetic Overlay Plate available upon request.

Base Plate	<ul style="list-style-type: none"> Grade ASTM-A36 for normal applications Stainless Steel 304 Grade for Corrosive environment Stainless Steel 310 Grade for High Temp & Corrosive environment
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Smallest Dia of Pipe

- 8 + 8 = 450 mm
- 6 + 6 = 410 mm
- 4 + 6 = 410 mm
- 4 + 4 = 320 mm
- 3 + 3 = 320 mm



When coating as external diameter, stress crack will occur and expand in long line which can be repaired without much adverse effect on wear resistance

EWAC HardGlide Surface Roughness:

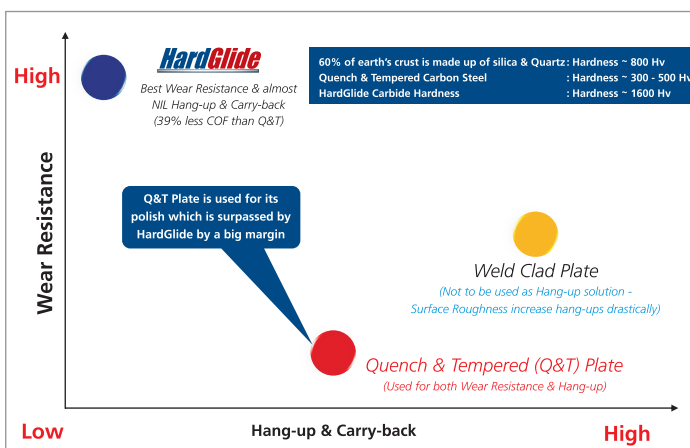
Wall Material	Surface Roughness 'Ra' (µm)
EWAC HardGlide (Mill finished)*	6.0
EWAC HardGlide (Polished)	2.1
Bulk Welded Clad Plate	9.5
Q&T Plate	7.6
White Cast Iron	17.0



The image of the Yellow colored outfit of the person standing beside the plate can easily be seen as reflection.

*Remarks: In service this will get polished to 2.1

Best In Wear Resistance & Anti-Hang-ups:



HardGlide-Mapping:

	HardGlide	Weld Clad Plate	Q&T Plate	Ceramic Tiles	Plastic / Rubber	Mn Steel Plate
Smooth Surface	●	●	●	●	●	●
Low Residual Stress	●	●	●	●	●	●
High Wear Resistance	●	●	●	●	●	●
Consistent Hardness	●	●	●	●	●	●
Impact Resistance	●	●	●	●	●	●
Heat Resistance	●	●	●	●	●	●
Corrosion Resistance	●	●	●	●	●	●
All Direction Wear	●	●	●	●	●	●
Easy Installation	●	●	●	●	●	●
No Size Limitation	●	●	●	●	●	●

● VERY HIGH ● MODERATE

Industry Applications:

Industry	Application
Iron Ore Mining	Chutes, Hoppers, Bins, Mining Machineries, Slurry Pipelines
Coal Mining	Chutes, Hoppers, Bins, Mining Machineries
Steel	Raw Material Handling Chutes / Hoppers, Sinter Bins, Blast Furnace Chute, Coke Handling System
Cement	Raw Material Handling Chutes / Hoppers, Coal Mills / Bins, Clinker Handling circuit, Packaging Section, Earth moving machineries etc.
Thermal Power	Coal Handling Chutes / Hoppers, Slurry Pipelines
Other Metals (Zinc, Copper, Aluminium)	Chutes, Hoppers, Bins, Mining Machineries



Chutes



Dump Body



Slurry Pipelines



Bins & Hoppers



Dragline Bucket with Hang Up



Dragline Bucket without Hang up



Dozer with Hang-up



Dozer without Hang-up



Scrubber Ventury



EWAC Reclamation Facility

Plot No. L-77, MIDC Taloja, Taluka - Panvel,
Dist - Raigad, Maharashtra - 410 208, INDIA.

EWAC Alloys Limited

Marketing & Head Office:

L&T Business Park, Tower - B, TC - II, 5th Floor, L&T Gate No. 5,
Powai Campus, Saki Vihar Road, Powai, Mumbai - 400 072, INDIA.
Tel: 022 6705 301718, Fax: 022 6705 9876
Email: enquiry@ewacalloys.com, Web: www.ewacalloys.com
CIN: U74999MH1962PLC012315

West Zonal Office:

Radhadaya Complex,
Old Padra Road,
Near Charotar Society,
Vadodara - 390 015, Gujarat.
Tel: 0265 6613 60718

South Zonal Office:

L&T Construction Campus,
TC - 1 Building, 2nd Floor,
Mount - Poonamallee Road,
Manapakkam, Chennai - 600 089.
Tel: 044 2270 6896

Central Zonal Office:

4th Floor, Crystal Towers,
GE Road, Telibandha,
Raipur - 492006, Chhattisgarh.
Tel: 0771 - 4283 209

Southeast Zonal Office:

2nd Floor, Vasantha Chambers,
5-10-173 Fateh Maidan Road,
Hyderabad - 500 004.
Tel: 040 2323 0689

North Zonal Office:

32, Shivaji Marg,
New Delhi - 110 015.
Tel: 011 4141 9540

East Zonal Office:

3B, Shakespeare Sarani,
Kolkata - 700 071.
Tel: 033 2282 0227

Southwest Zonal Office:

191/1 Dhole Patil Road,
Pune - 411 001.
Tel: 022 6603 3211