TIVAR® DockGuard UHMW-PE

Key benefits

- **Low-friction surface:** Allows vessels to glide easily along the surface, protecting hulls and dock structures. Sheds mussels and barnacles with minimum cleaning. Impervious to marine bore worms.
- **Wear-resistant surface:** Outwears hardened steel.
- **No water absorption:** No swelling or deterioration from water permeation.
- **Chemical and corrosion resistant:** Withstands salt water, fuel and chemicals.
- **Chemically inert and eco-friendly:** Does not leach chemicals into waterways, disturbing fragile ecosystems.
- **Performs in weather extremes:** Sub-zero conditions will not degrade TIVAR® performance. It retains key physical properties to -30° C. TIVAR® material is UV-resistant, which increases wear life in seaport exposures.

Common applications

- Fender facing
- Piling rub strips
- Custom extrusions, molds, fabrications
- Rubber backing

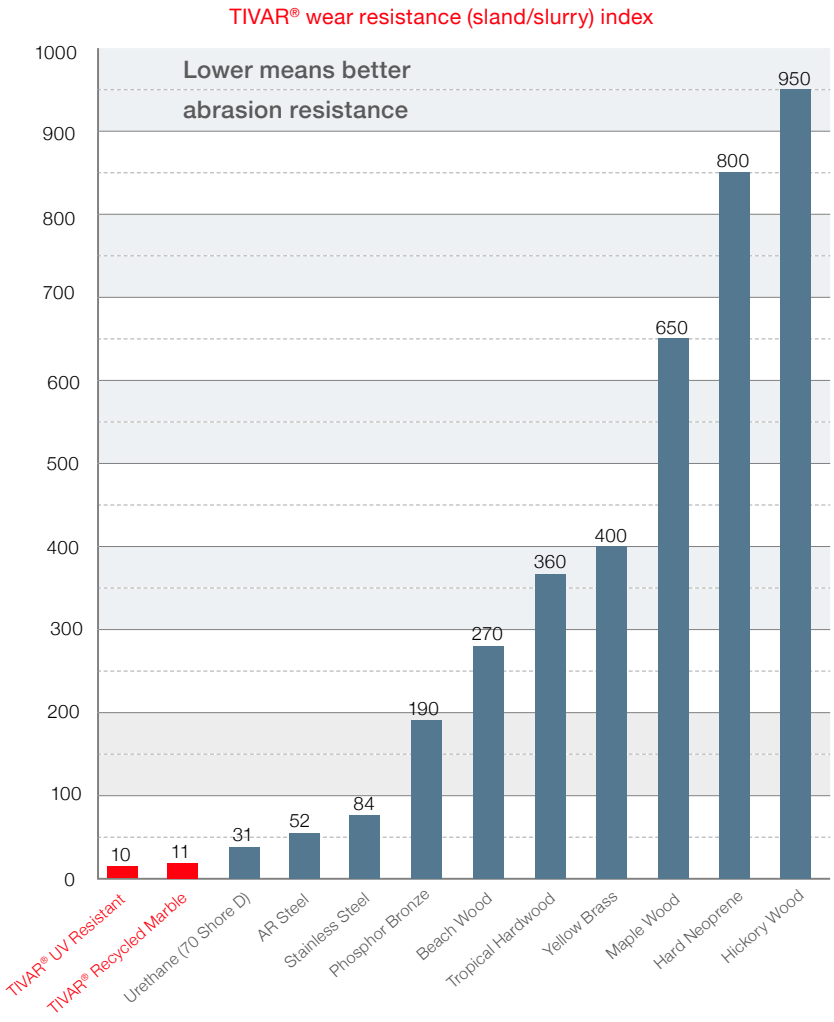
Excellent wear capabilities for fender systems

Developed by the Mitsubishi Chemical Group - Advanced Materials Division, TIVAR® DockGuard fender facing performs in the most stringent situations and wear conditions, and outlasts other materials such as wood, rubber, urethane, or high density polyethylene; even after 20 maintenance-free years in corrosive saltwater, sunlight, and extremely cold weather. Outwearing hardened steel, UV-resistant TIVAR® DockGuard withstands salt, fuel, and chemical spills.

Dynamic coefficient of friction on polished steel

MATERIALS	DRY	WATER
TIVAR® UV Resistant	0.10 - 0.14	0.06 - 0.10
TIVAR® Recycled Marble	0.15 - 0.18	0.06 - 0.10
PTFE (Teflon®)	0.04 - 0.25	0.04 - 0.08
Nylon	0.15 - 0.40	0.14 - 0.19
HDPE	0.20 - 0.30	
Wood (Bongossl)	0.20 - 0.30	
Wood (Oak)	0.20 - 0.30	

MITSUBISHI CHEMICAL GROUP



Dedicated fabricating center

The Advanced Materials Division of the Mitsubishi Chemical Group makes fender system components to exact specifications. Machinery includes CNC routers with oversize, split tables, shaper, and multi-head moulder; proprietary seamless welding technologies, and standard planers, saws, and milling machines.

MITSUBISHI CHEMICAL GROUP