

INDUSTRIAL APPLICATION: SCRAP SHEARING MACHINERY

Customer Challenge

*Equipment Damage,
Downtime & Safety*

- Scrap shears are a major investment; therefore, frequent downtime and costly servicing create an operational nightmare.
- Linear and radial plain bearings do protect equipment to keep them running. If the right bearing is not installed, this could create an even bigger issue, resulting in a short service life, messy lubrication and contamination.

Our Solution

*WearComp® Carbon Fiber
Composite Bearings*

- Changing cycle of 3 to 4 years
- Grease-free guiding of the knife
- Less wear & longer service life of material
- No contamination of end product



WEARCOMP® LINERS

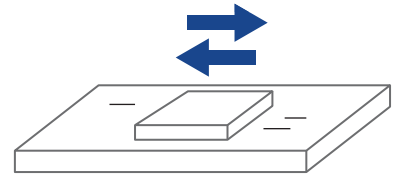
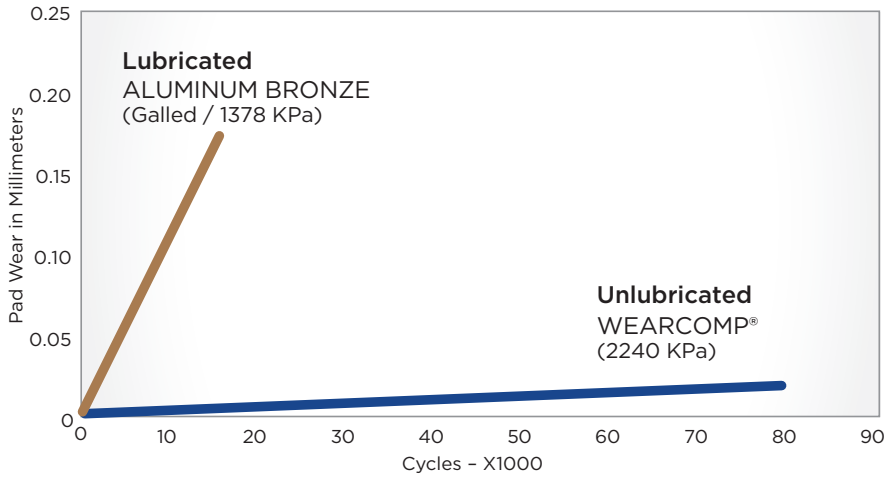


WearComp® Material: Wear and Mechanical Test Data



Testing results prove our material outperforms lubricated bronze and metallic plain bearing materials.

RECIPROCATING WEAR TESTING

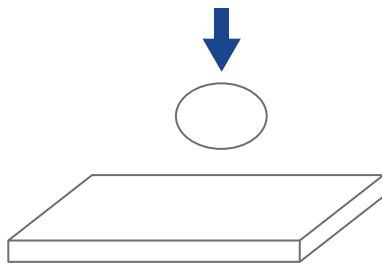


Reciprocating wear tester (50mm stroke, load 1378-2240 KPa)

DYNAMIC COEFFICIENT OF FRICTION

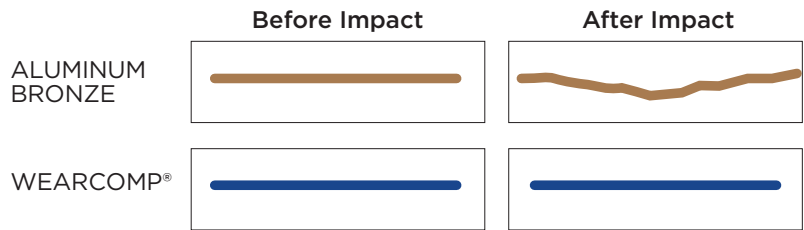
Material	Value
ALUMINUM BRONZE	.44
WEARCOMP®	.15 - .25

Impact Data



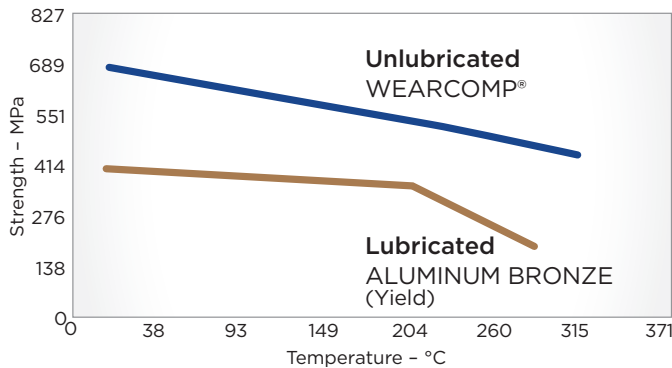
Falling ball impact test (1.36 Kgs ball dropped from 2.28 Mtrs)

SURFACE PROFILE

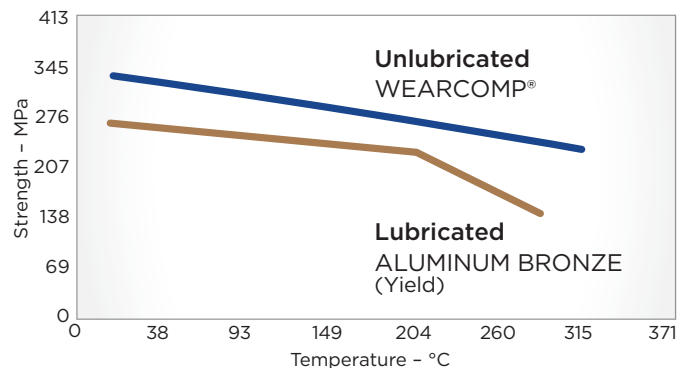


Material	Impact Energy (Mtrs Kgs)	Rebound (Mtrs)
ALUMINUM BRONZE	3.10	0.45
WEARCOMP®	3.10	1.37

COMPRESSIVE STRENGTH



TENSILE STRENGTH COMPARISON



TriStar



Engineered Plastic Solutions™

Engineering | Custom Fabrication | Manufacturing

1.800.874.7827

www.tstar.com

SAINT-GOBAIN

www.hycompinc.com

CREEP UNDER LOAD

WearComp®	Pressure (MPa)	Disformation %
23°C	103.42	.38
204°C	103.42	1.16