

**WearComp®**

Carbon Fiber Composite Solutions

Saint-Gobain HyComp, LLC

**HyComp®**

## INDUSTRIAL APPLICATION: STEEL & ALUMINUM ROLLING MILLS

### Customer Challenge

#### *Equipment Failure & Downtime*

- Rolling mills lose efficiency and waste money when equipment fails and unexpected downtime occurs.
- Linear and radial plain bearings are the first line of defense to protect equipment and keep it running. However, most bearings have a short service life and require messy lubrication, including close attention from the maintenance crew.

### Our Solution

#### *WearComp® Carbon Fiber Composite Bearings*

- 4 to 10 times longer service life compared to bronze
- Self-lubricating material provides low cost and high cleanliness
- 600°F (316°C) continuous operating with spikes to 1,000°F (538°C)
- Excellent dimensional stability & high impact resistance



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**Critical parts  
making THE difference**



PRECISE FIT    LIFETIME CONFIDENCE



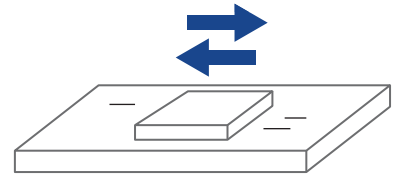
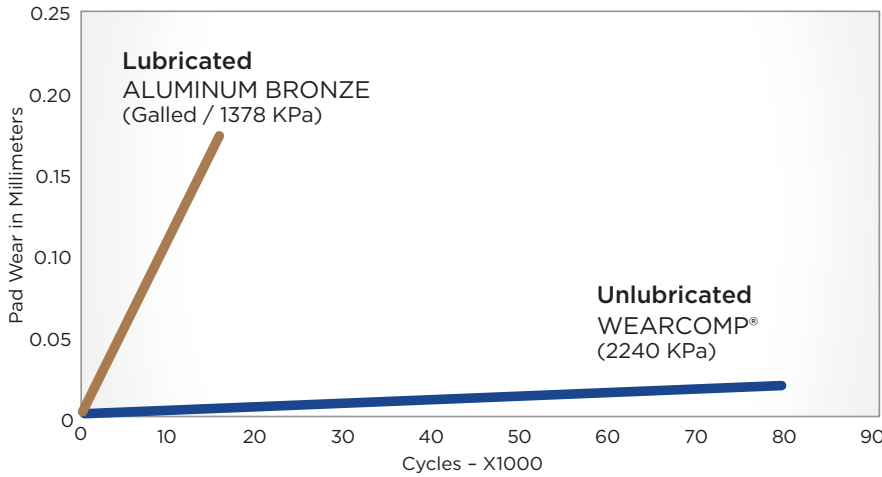
**SAINT-GOBAIN**

# WearComp® Material: Wear and Mechanical Test Data



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

## RECIPROCATING WEAR TESTING

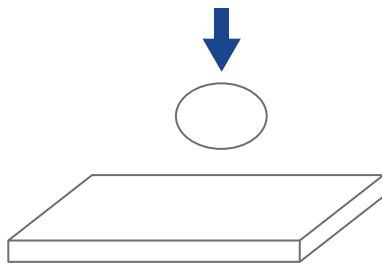


Reciprocating wear tester (50mm stroke, load 1378-2240 KPa)

### DYNAMIC COEFFICIENT OF FRICTION

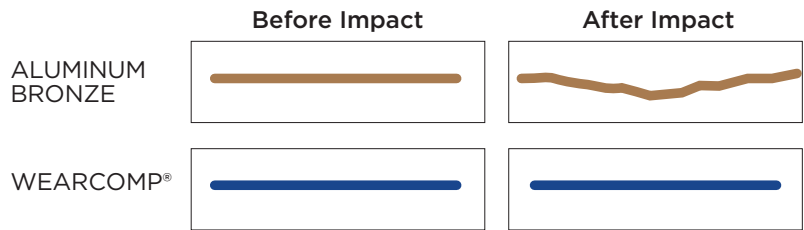
Material	Value
ALUMINUM BRONZE	.44
WEARCOMP®	.15 - .25

## Impact Data



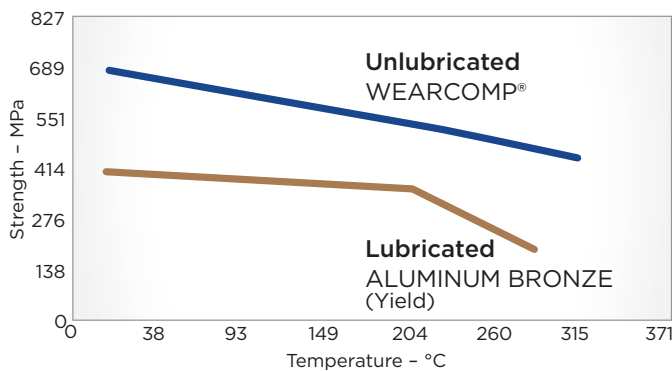
Falling ball impact test (1.36 Kgs ball dropped from 2.28 Mtrs)

## SURFACE PROFILE

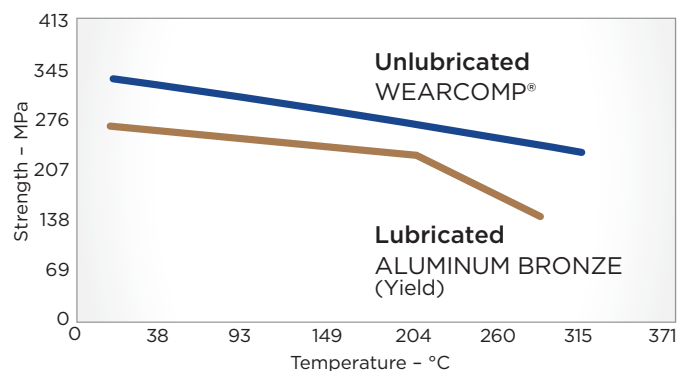


Material	Impact Energy (Mtrs Kgs)	Rebound (Mtrs)
ALUMINUM BRONZE	3.10	0.45
WEARCOMP®	3.10	1.37

## COMPRESSIVE STRENGTH



## TENSILE STRENGTH COMPARISON



### CREEP UNDER LOAD

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



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