

# RUBBER LINING FOR MINING



Our expertise is in bonding rubber to metal parts. For mining operations, this includes: Pipe; Tanks; Chutes; & Launder. We test our materials for abrasion resistance to ensure we are providing you with the product best suited to your needs.

	PC-60ARN	Polyurethane	Black Natural	Tan Gum
Mass Loss/Cycle (mg/cycle)	0.0661	0.0860	0.7918	0.9761
Cycles	3,000	3,000	3,000	3,000
Total Mass Loss (g)	0.1983	0.2580	2.7923	2.9283
Specific Gravity	1.10	1.11	1.099	1.035
Volume Loss (cm <sup>3</sup> )	<b>0.1803</b>	0.2324	2.1614	2.8292

### Compounds Tested for Abrasion Resistance:

- **PC-60ARN** ..... Proco's proprietary Abrasion resistant Black Natural Rubber compound.
- **Polyurethane**.... Abrasion resistant polyurethane believed to be best for abrasion resistance.
- **Black Natural** ... 60 Durometer abrasion resistant rubber specified by our competitors.
- **Tan Gum**..... 40 Durometer gum rubber often specified by others because of its low cost.

The table above clearly shows that Proco's **PC-60ARN** exhibits the best abrasion resistance of all materials tested. Even better, our **PC-60ARN** has a low installed cost. Don't let other companies sell you an inferior product with a thin top layer of polyurethane. Our lining gives you the same outstanding abrasion resistance through its entire thickness.

Proco is a turn-key operation. We can fabricate: piping; metal chutes; and launders; as well as other core metal parts. We can also line new parts provided by the customer, or reline old parts to extend their useable life. We will fabricate line, paint and deliver to your specifications, ready for you to install. If your equipment is too large or too difficult to transport, we can perform lining at your facility.

All testing was performed by Akron Rubber Development Laboratory, Inc. (ARDL). ASTM D 3389-05 measures the weight loss of material per revolution. Tests were performed using H18 abrasive wheels and 1,000 gram load per wheel for 3,000 cycles. Comparing just the weight loss will skew the actual results because materials have different densities (specific gravities). The information needed to fairly compare the results is volume loss. The adjustment formulas would be:

$$D = S \times W$$

$$V = M \div D$$

since  $W=1$  then  $D = S$   
 which yields:  $V = M \div S$

Where:

- S** = specific gravity (ratio of: material density ÷ density of water)
- W** = density of water (1 g/cm<sup>3</sup>)
- D** = density of material (g/cm<sup>3</sup>)
- V** = total volume of material lost
- M** = total mass loss of abrasion test (loss/revolution x revolutions)

We have remained an active growing company since our founding. Our Knowledge and Experience has made us a **ROLE MODEL** for the Rubber Lining Industry. We will be happy to provide you with a competitive quote. We will process your order promptly, efficiently and professionally.

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