

Wet Abrasion Resistance

1) Basic Information

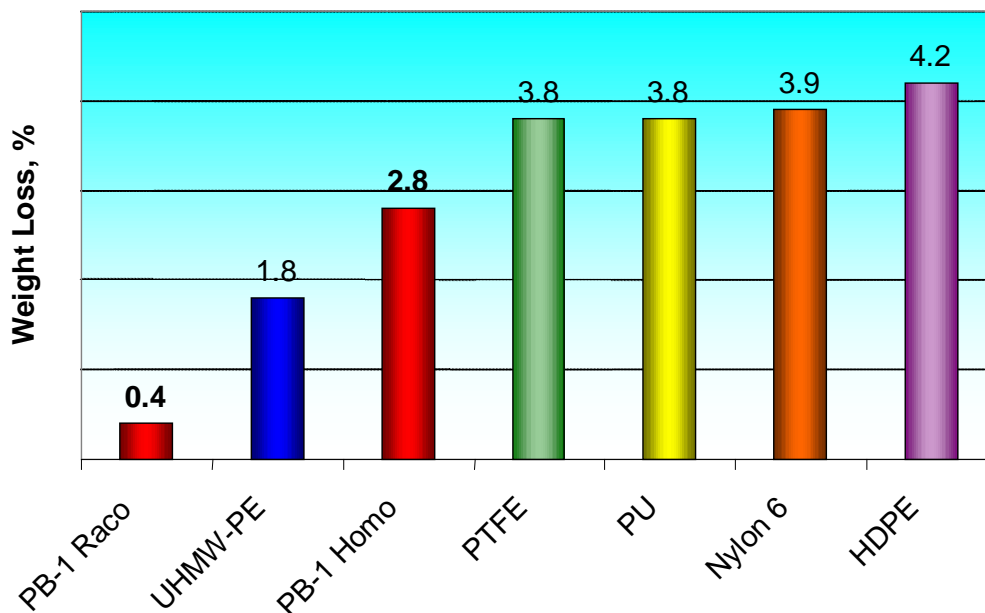
Wet abrasion resistance is especially important e.g. for applications in mining or oil fields. The high content of solids in the water is abrading metal pipes within months, leading to leakages and thus production stopps.

Plastic pipes or coating has improved the lifetime of such transport lines significantly.

2) Grafic overview

Wet Abrasion Resistance

Aluminiumoxid-Slurry Test acc. ASTM R&DC-159B



3) Results

PB-1 Homo is the same grade as used for heating pipes. This material can be directly compared to HDPE (similar to PEX). PB-1 is significantly better and this results in a better resistance to high flow speed. In combination with welded fittings, this gives the best solution. Mechanical compression fittings are more sensitive to abrasion – so flow speed for such systems has to be limited.

In PB-1 systems higher flow speed, depending on the dimension, even as high as 3,5 m/s can be allowed.

4) References/Standards

PB-1 is successfully used in mining applications since 30 years.

Pipe manufacturer allow for higher flow speed in fully welded systems, like District Heating, Geothermal, Group Heating etc.

Technical data are subject to alteration.

