

Polyethylene B-Nets can be unsafe after two years

Recent tests of Polyethylene and Nylon B-Nets used in alpine ski racing resulted in some surprising differences in life expectancy.

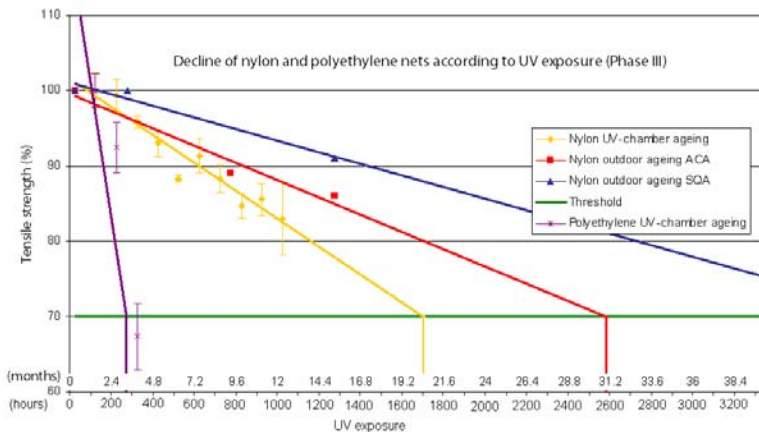
Recent testing has been completed on B-Nets that have been in the field for five years and also on nets that were placed in a QUV chamber to measure the effects of UV radiation and to compare various fibres used in the making of ski safety B-Nets. Accelerated weathering (QUV chamber) tests indicate that polyethylene nets have a life expectancy of approximately six months (equivalent to approximately 2 ski seasons) under normal use, while nylon (Polyamide) B-Nets were still well above minimum strength requirements after five seasons.



Nylon netting showing no evidence of breakdown after exposure to 500 hrs UV, and prior to being tested for residual tensile strength.



Knotted polyethylene breakdown after exposure to 500 hrs UV, and prior to being tested for residual tensile strength.



Full size graphic: http://www.barry.ca/Publication/decline_UV_research.jpg

Current industry practice is to retire safety nets when their tensile strength deteriorates to 30% of original strength. When new polyethylene nets were tested in a QUV chamber testing shows that they have a dramatic decrease in strength and lose over 70% of their strength after just 300 hours of UV exposure - equivalent to about two seasons of use.

Nylon B-Nets were subjected to the same QUV testing and showed only a 17% loss of strength from their original after 1000 hours and showed a very slow rate of strength decrease after that.

“We knew that polyethylene didn’t stand up well to UV which is why we only work with coated nylon nets” said Peter Barry, president of Barry Cordage Ltd, “but to find that polyethylene only lasts half as long is shocking”. Mr. Barry said that proper tagging and logging of net usage is essential to make sure that un-safe nets are traceable and retired before they become hazardous.

Further tests were done on Barry B-Nets used in the field by Alpine Canada Alpin (ACA) and Ski Quebec Alpin (SQA) for five seasons in various locations across Canada. These nets still showed residual tensile strength readings of 75% to 86% of the original values suggesting that they can be safely used for many more seasons.

Full test results can be obtained from Barry Cordage Ltd.

For more information please Contact: Marc-André Pilon mapilon@barry.ca tel: (514) 328-3888 ext. 231

www.barry.ca/snowsports/