



Fall Protection

Cleaning of Web in Personal Fall Protection Products

Description

Personal Fall Protection products manufactured from webbing can and are recommended to be cleaned periodically to help extend the life expectancy of the product and maintain product performance. Because of the wide variety of cleaning processes available and the potential effects on performance, 3M Fall Protection recommends the following guidelines should be observed.

Scope

The cleaning processes and procedures specified in this bulletin apply to 3M DBI-SALA and Protecta nylon and polyester webbing products used in Personal Fall Arrest Systems (PFAS). Synthetic rope products, such as lifelines or lanyards, can be cleaned using similar processes. Although, rope type lanyards are typically more economical to purchase than most other fall protection products, therefore, the justification to clean these items may not be beneficial. The potential damage (i.e., wear, cuts, etc.) to rope lanyards in many applications also makes cleaning difficult to justify. Specialized web materials (Kevlar® fiber, elastic types, and reflective elements) and hardware materials/coating must be analyzed prior to cleaning to determine effectiveness and potential damage from the cleaning process.

Frequency

General laundering itself is not known to significantly contribute to strength loss, although it has been observed that commercial washing may cause abrasion between metal hardware elements and webbing straps, as well as cause degradation of product markings. Laundered products must be inspected prior to use and after laundering, to determine if the product is acceptable for use. The specific length of time between laundering is solely dependent on the cleanliness of the product. Some applications may require weekly cleaning; other applications may require the product to be cleaned on an annual basis.

Test Samples

Laundering is generally effective on typical dirt and grease exposures found in many industrial settings. Most paints, tar, and industrial contaminants cannot be completely removed from webbing. It is recommended that test samples be laundered and inspected before a large quantity is processed to determine the effectiveness of laundering. Post laundering sample destructive testing may be appropriate if concerns exist regarding the product's ability to perform as designed.

Laundering Procedure

Various procedures can be effective in cleaning web products. High-pressure power type washers and steam cleaners should not be used when cleaning web products due to potential damage to the web fibers. Two acceptable procedures are detailed below.

Hand Scrubbing

This procedure is generally effective for low volumes of equipment. The product can be presoaked in a warm water/cleaner solution prior to hand-scrubbing. The water temperature, when laundering, should not exceed 130° F (54.4° C). A mild detergent (bleach free) such as one used for the laundering of personal clothing articles is recommended. The hand scrubbing action will help break down the dirt, grease, or other material on the webbing. Once cleaned, the product should be rinsed in clean water and hung to air dry in a well-ventilated area out of direct sunlight. Never exceed 130° F (54.4° C) when drying.

Machine Wash

A top or side loading agitating style washing machine (commercial or consumer type) is acceptable for cleaning web products. The product should be placed in a mesh laundry bag to prevent entanglement. A full wash and rinse cycle should be performed using a mild detergent (bleach free) such as one used for the laundering of personal clothing articles. The water temperature, when laundering, should not exceed 130° F (54.4° C). Once cleaned, the product should be hung up to air dry in a well-ventilated area, out of direct sunlight. Never exceed 130° F (54.4° C) when drying.

Cleaning Agents

A mild detergent (bleach free) such as one used for laundering clothing is acceptable. For added cleaning power, a commercial/industrial strength cleaning agent can be used.

Commercial Laundry Detergent		For Scrubbing by Hand	
By Pas 1500 Series	By Pas International Corp. P.O. Box 14 Hudsonville, MI 49426 Phone: (616) 772-5100 http://www.bypasclean.com/?s=1520	Citra-Scrub	Share Corporation P.O. Box 245013 Milwaukee, WI 53224 Phone: (414)355-4000 http://www.sharecorp.com/sites/default/files/044001_013117%20Share%20Corporation%20Citra-Scrub_SDS.pdf
Flo-Class	U.N.X. Incorporated 707 Arlington Blvd. Greenville, NC 27858 Phone: (252) 756-8616 http://www.unxinc.com/85349727/513.pdf		
Innovator Plus	EcoLab Attn: Textile Care Division 370 N. Wabasha St. Paul, MN 55102 Phone: (800) 553-8683		

The cleaning agent supplier you select should be asked to recommend the amount of cleaning agent to use (and disposal instructions) based on your procedure and the degree of cleaning required. Also, if a consumer type washing machine is to be used, consult cleaning agent supplier for compatibility. The cleaning agents listed have been reviewed and approved for use. 3M recommends cleaning agents not listed be reviewed by 3M for approval prior to cleaning.

Cleaning Agent Specifications

The pH level (acidity or alkalinity) of the cleaning solution should be no higher than 12. A pH level higher than 12 may harm the webbing and effect the performance of the products.

IMPORTANT NOTE

Refer to the 3M *User Instructions* provided with your product for additional information.

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