

Butyl Caulk

Application Note

Significant Issue:

Interfibe RT cellulose fibers are used as a reinforcing thixotrope in adhesives and sealants. They provide desirable flow control characteristics that approach those imparted by asbestos. Although RT fibers are not a 1:1 "drop-in" replacement for asbestos, they do have these properties in common with asbestos: good thixotropy imparted to the formulated caulk; the ability to reinforce the bulk caulk and the ability to produce caulks without excessive surface texture.

Customer Objectives:

- Replace asbestos or other high cost fibers
- Obtain lower formulation costs through the reduction of other raw materials
- Maintain product flexibility, sag resistance and flow

Interfibe Solution:

By formulating with Interfibe RT fibers, the customer receives economic benefit by reducing the use of more costly synthetic fibers and benefits environmentally through the use of a safe, non-hazardous alternative to asbestos.

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your local distributor or
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RT Fibers in a Butyl Caulk Formulation

A butyl caulk containing asbestos as a reinforcing thixotrope was reformulated to a non-asbestos containing material using a mixture of fumed silica and RT fibers.

The butyl caulk formulation was chosen as a representative of the class of solvent-based sealants, which includes materials such as acrylic, SBR, Neoprene, and Hyperlon. The results show that asbestos can be replaced with RT fibers with no subsequent loss in physical properties.

Formulations

	BC-1 (control)	BC-2
Butyl rubbers	9.6	9.6
Polybutene	14.4	11.4
Talc	17.6	17.6
Tackifying resin	3.8	3.8
TiO ₂	1	1
Ground limestone	24	27.5
Mineral spirits	24	23.5
RT fibers	----	4.5
Fumed silica	----	0.5
Asbestos(7RF02)	5	----

Experimental Results

	BC-1 (control)	BC-2
Appearance		
Surface	9	7
Gloss	6	8
Uniformity	9	8
Viscosity		
Initial	80	50
Aged	88	52
% increase	10	4
Flow, in movement		
Initial	0	2/16
Aged	1.5/16	1/15
Slump (Boeing),		
In. movement	0.20	0.20
UV channel, 24 hr/140°	Pass	Pass
Angle heat aging,		
72 hr/150°F	Pass	pass

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