



COMMERCIAL/INDUSTRIAL INFORMATION BULLETIN

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MODIFIED BITUMEN COLD FLEXIBILITY

"Cold Flex" is a potentially misunderstood property of modified bitumen membranes. Originally, this test parameter was developed as a way to monitor the quality of the modified bitumen compound in manufacturing facilities. A significant improvement in the compound's ability to be bent at cold temperatures, is used by manufacturers to confirm that the polymerization of the asphalt component has successfully occurred. In the real world, often a product's cold flexibility temperature is used as an indicator of the cold temperature application limits, as well as the product's ability to perform in cold weather environments. Typically, products with "good" cold flexibility values perform well in all climates and under all building expansion and contraction conditions.

It may have been noticed that the values listed on technical data sheets for the various IKO modified bitumen membranes have recently changed from values of "PASS @ -30°C" to values of "PASS @ -15°C". This change is due to a change in the procedure stated in the CGSB specification for this property and not due to a change in the quality of IKO membranes.

The primary change in the procedure is how the failure point is identified. In the past, the samples were bent at -30°C and then had to go through a water tightness test. Membranes with cracks to the reinforcement often still passed this water tightness test. In the current test, the sample is bent at -15°C and is only considered to fail if there are cracks in the coating down to the reinforcement. Also, the procedure change now involves a one-inch diameter test mandrel where a two-inch diameter mandrel was used in the past.

IKO modified membranes continue to exceed the specifications used to identify quality building materials. For example, our SBS membranes can actually pass a cold flex test at -20°C or colder, but since the CGSB specification only requires a -15°C pass, this is all that's referenced on our technical data sheets. Even though industry specifications and test requirements may change, IKO continues to provide its customers with the best modified bitumen roofing products.

For additional information on any of IKO's products or application requirements, visit us on the web at www.iko.com (North America), or contact us in Canada/United States at 1-800-361-5836 (press "1" for English and then "2" for our Technical Support Department).

