

JONES&VINGING

Dual Hardness Insole Board Bi-Fit

Overview

Unlike conventional paper-based insole boards, tuckboards and insoles that require a separate shank, Jones & Vining's Bi-Fit is a unique dual-hardness insole board made of either PP or PE plastic that combines a flexible forepart with a rigid backpart in one easy component.

Molded or die-cut options are available, plus unique applications feature a top layer of cushioning foam or poured PU for enhanced comfort. Waterproof, breathable and easily cemented to any shoe, Bi-Fit is perfect for applications that range from work to comfort to performance.

Let Jones & Vining's more than 80 years of manufacturing expertise customize a Bi-Fit solution to fit your exact needs.



Bi-Fit Highlights

- 1 **Lightweight:** A non-metal alternative to steel shanks
- 2 **Waterproof:** Moisture-wicking with non-woven cover and backer
- 3 **Eco-friendly:** Created from 80% post-consumer recycled PE or PP
- 4 **Available in die-cut sheets or molded for contour shaping and easy cementing.**



Bi-Fit Test Report

Objective: Evaluate flex properties of several Polyethylene (PE) and Polypropylene (PP)

Bi-Fit parts Bi-Fit Samples Tested:

JV004 PE sheet: 1.6mm forepart x 2.8mm backpart + spun non-woven cover and backer

JV012 PE molded: 1.5mm forepart x 3mm backpart + spun non-woven cover and backer

JV021 PP sheet: 2.5mm single density + spun non-woven cover and backer

Procedure:

All samples were tested using the Ross Flex apparatus and standard procedures. In the case of molded Bi-Fit samples, the forepart only was tested. Testing was done at both room temperature and at -20°F.

Results: Room Temperature:

JV004 PE: no observable cracks at 100K cycles

JV012 PE: 620% cut growth at 100K cycles

JV021 PP: 900% cut growth at 14K cycles

Results: -20° Farenheit:

JV004 PE: 900% cut growth at 9K cycles

JV012 PE: 900% cut growth between 16.5 and 25K cycles

JV021 PP: 900% cut growth between 0.1 and 1.9K cycles

Conclusion:

The softer yellow PE forepart exhibits better flex properties than the stiffer black PE or black or white PP. Increased hardness and thickness of PE both negatively affect the flex performance.

Comparison PULL TEST on BI-FIT with WELT RIB ATTACHED (01/03/03):

Samples Tested & Results:

Bond between welt rib and Texon Board (control) is 10.4 to 15.2 pli.

Bond between the welt rib and mesh fabric of JV004PE is 17.6 to 27.2 pli.

Bond between the Bi-Fit PE and the spun non-woven cover is 17.6 to 24 pli.

Conclusion:

Bond of welt rib to the Bi-Fit PE insole exceeds the present Texon/welt rib composite