

DuPont™ Vespel®

Shapes for Sockets

Product Comparisons for Test Socket Materials

Product Descriptions

Increased demand for advanced socket designs (eg. RF sockets used for testing multi-function chips) is testing and exceeding the capability of conventional socket materials. The trend toward smaller pin sizes and finer pitches requires stronger/stiffer materials with improved dimensional stability and stable electrical properties.

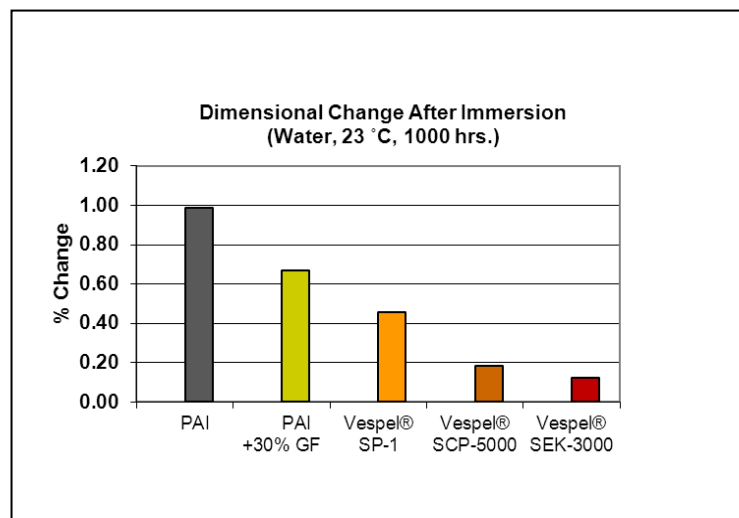
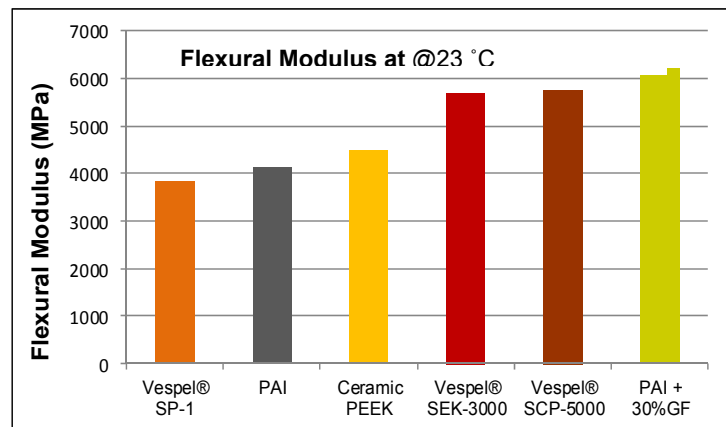
DuPont offers a variety of Vespel® products to help meet your performance requirements and cost targets, including the latest addition to the portfolio, Vespel® SEK-3000. Vespel® SP-1, SCP-5000 and SEK-3000 polyimide parts exhibit the material characteristics necessary to help meet the design challenges of high performance test sockets.

Features

- Superior mechanical properties/stiffness
- Retains mechanical properties at elevated temperatures
- Excellent dimensional stability vs. temperature and humidity
- Excellent material durability (impact and wear resistance)
- Good/stable electrical properties

Benefits

- Accurate package/probe positioning and contact. Improved pin alignment translates to improved test efficiency, increased cycle life and higher throughput.
- More accurate test results and reduced “cross talk” to enable high frequency testing.
- In many cases, lower total machining cost by eliminating costly secondary machining steps to clean up holes.



The miracles of science™

Vespel® Sizes Available*

Product	Shapes	Sizes *	
		(inches)	(mm)
Vespel® SP-1	Plaque	9x9	228.6 x 228.6
	Plaque	4.5 x 4.5	114.3 x 114.3
	Blank	3 x3	50.8 x 50.8
	Blank	2.5 x 2.5	63.5 x 63.5
Vespel® SCP-5000	Plaque	10 x 10	254 x 254
	Bar	1.5 x 3.5 x 12.5 L	38.1 x 88.9 x 317.5L
Vespel® SEK-3000	Sheet	~18.8 x 21.6	480 x 550
	Sheet	~18.8 x 43.3	480 x 1100

*A variety of thicknesses available to meet your test socket needs

Relative Product Performance for Socket Materials*

Properties	Vespel® SEK-3000	Vespel® SCP-5000	Vespel® SP-1	PAI	PAI + 30% GF	Ceramic PEEK
Flexural Modulus	Excellent	Excellent	Good	Very Good	Excellent	Very Good
Dimensional Stability						
-Coefficient of Linear Expansion (X-Y)	Excellent	Good	Good	Very Good	Good	Good
-Dimensional Change After Moisture Exposure	Excellent	Excellent	Very Good	Poor	Good	Excellent
Form Factor	Excellent	Good	Good	Excellent	Very Good	Excellent
Machinability	Good	Excellent	Excellent	Very Good	Good	Very Good
Electrical	Excellent	Excellent	Excellent	Good	Good	Good

*Ratings are based on published literature and DuPont internal tests.

Visit us at kalrez.dupont.com or vespel.dupont.com

Contact DuPont at the following regional locations:

North America
800-222-8377

Latin America
+0800 17 17 15

Europe, Middle East, Africa
+41 22 717 51 11

Greater China
+86-400-8851-888

ASEAN
+65-6586-3688

Japan
+81-3-5521-8484

The information set forth herein is furnished free of charge and is based on technical data that DuPont believes to be reliable and falls within the normal range of properties. It is intended for use by persons having technical skill, at their own discretion and risk. This data should not be used to establish specification limits nor used alone as the basis of design. Handling precaution information is given with the understanding that those using it will satisfy themselves that their particular conditions of use present no health or safety hazards. Since conditions of product use and disposal are outside our control, we make no warranties, express or implied, and assume no liability in connection with any use of this information. As with any product, evaluation under end-use conditions prior to specification is essential. Nothing herein is to be taken as a license to operate or a recommendation to infringe on patents.

Caution: Do not use in medical applications involving permanent implantation in the human body. For other medical applications, discuss with your DuPont customer service representative and read Medical Caution Statement H-50103-4.

Copyright © 2013 DuPont. The DuPont Oval Logo, DuPont™, The miracles of science™, Kalrez®, and Vespel® are trademarks or registered trademarks of E.I. du Pont de Nemours and Company or its affiliates. All rights reserved.

(02/11) Reference No. VPE-A10932-00-A0213



The miracles of science™