

# 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.

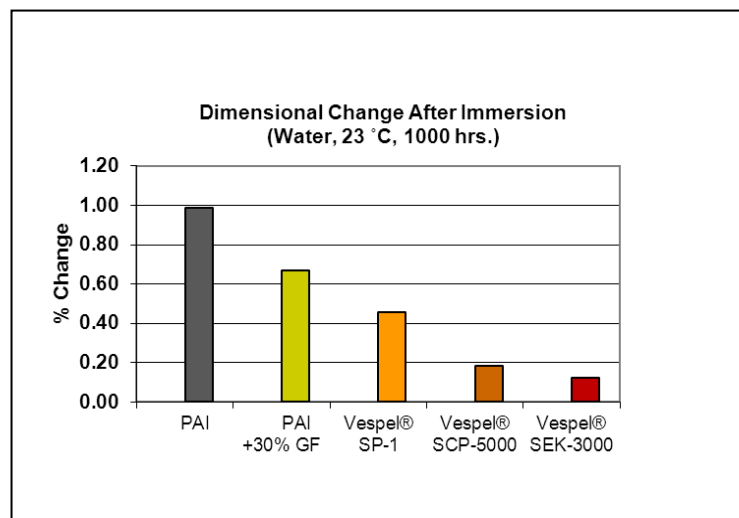
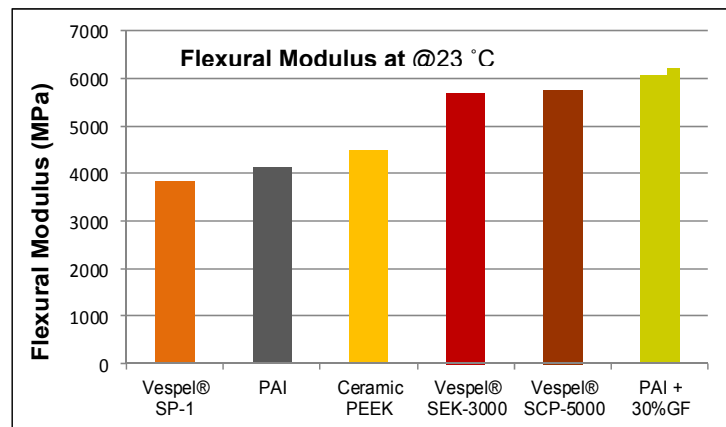
DuPont offers a variety of Vespel® products to help meet your performance requirements and cost targets, including the latest addition to the portfolio, Vespel® SEK-3000. Vespel® SP-1, SCP-5000 and SEK-3000 polyimide parts exhibit the material characteristics necessary to help meet the design challenges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



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## 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
<b>Flexural Modulus</b>	Excellent	Excellent	Good	Very Good	Excellent	Very Good
<b>Dimensional Stability</b>						
-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
<b>Form Factor</b>	Excellent	Good	Good	Excellent	Very Good	Excellent
<b>Machinability</b>	Good	Excellent	Excellent	Very Good	Good	Very Good
<b>Electrical</b>	Excellent	Excellent	Excellent	Good	Good	Good

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

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