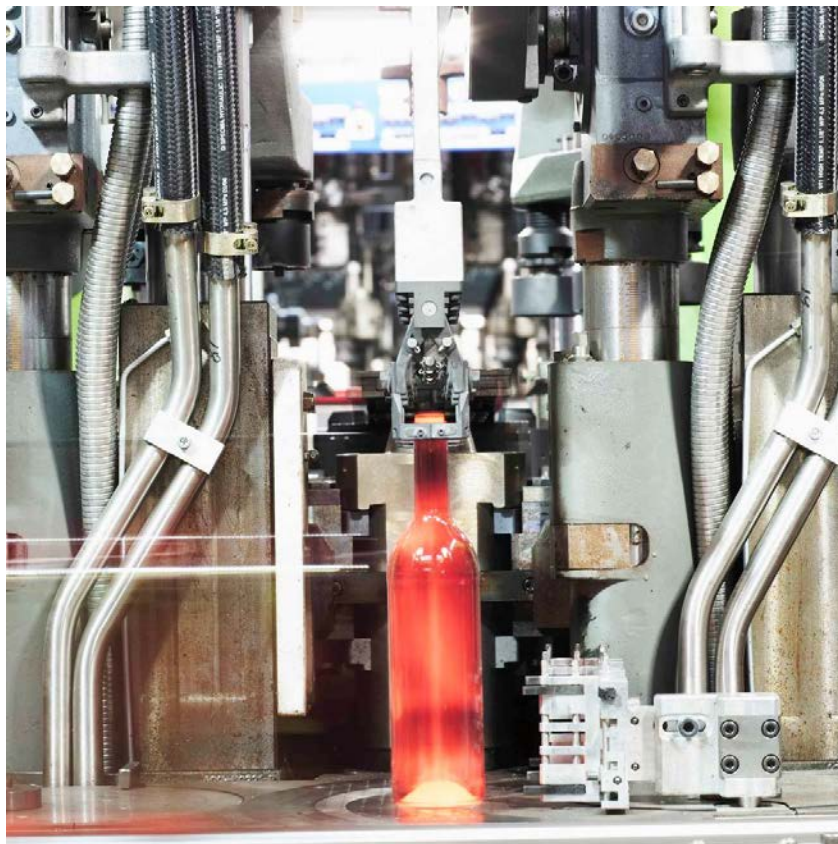


# Technical News Bulletin

Steinhausen, April 2010

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## New Pusher Finger Material

- New glass contact material called DuPont™ Vespel® SCP5050 with superior material properties.
- Unique finger design where the fingers are adapted to the container by means of exchangeable finger liners.
- DuPont™ Vespel® SCP5050 is a high performance resin developed for the semiconductor and aerospace industry.

## Introduction

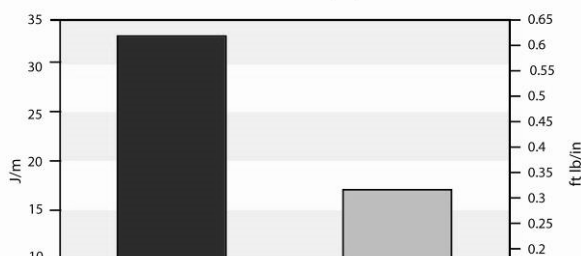
The FlexPusher has become the standard pusher mechanism for the entire range of our Emhart Glass machines from SIS to NIS. The motion, generated by two servo motors, creates smooth profiles to handle various types and shapes of containers up to very high speed without restrictions. The FlexPusher has also a unique finger design where the fingers are adapted to the container by means of exchangeable finger liners. These parts have traditionally been made from carbon graphite or similar material.

Emhart Glass introduces now a new glass contact material called DuPont™ Vespel® SCP5050 with superior material properties for physical strengths, thermal heat transfer coefficient and wear properties.

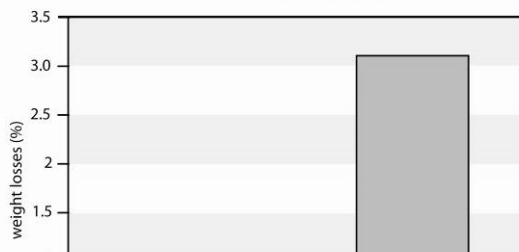
## Features and Material Properties

DuPont™ Vespel® SCP5050 is a high performance resin developed for the semiconductor and aerospace industry. The material combines heat resistance, lubricity and good wear properties, dimensional stability and chemical resistance to be used in hostile and extreme environmental conditions. These material properties of the new material fit very well to the requirements in the Glass Container Industry. Source DuPont de Nemours.

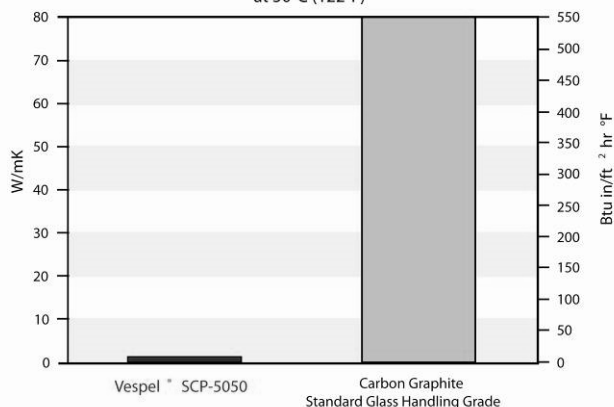
Notched Izod Impact Resistance  
(ASTM D 256) at 23°C (73°F) after heat aging in air, at 315°C (600°F) for 100 hr



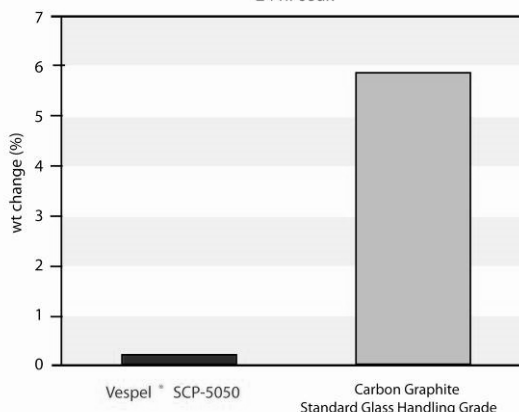
Wear Measured as Percent Weight Loss  
315°C (600°F), 25 hr, 100 Hz



Thermal Conductivity  
at 50°C (122°F)



Oil Absorption  
24 hr soak



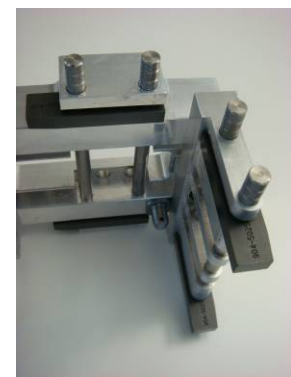
The thermal conductivity of DuPont™ Vespel® SCP5050 is by factors lower than standard carbon and graphite material, together with the low oil absorption rate of new material it gives the rationale why this new material will create less checks on the finished container.

The wear properties are also by factors better than on standard materials. In conjunction with the higher impact resistance the expected lifetime is significantly higher than alternative pusher finger material.

## Available Finger Liner Sizes

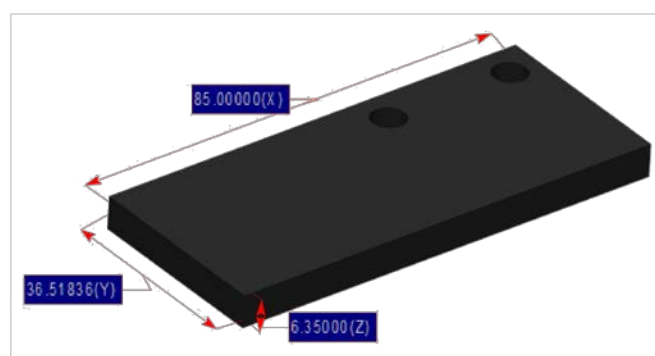
The material of following finger liners has been changed to DuPont™ Vespel® SCP5050

Type	Part Number	Availability
Backplate Liner	904-5089	available
Backplate Liner	904-5025	available
Backplate Liner	904-5051	available
Finger Liner	904-5096	available
Finger Liner	904-5097	available
Finger Liner	904-5039	available
Finger Liner	904-5034	Q II/2011
Finger Liner	904-5048	Q II/2011
Finger Liner	904-5099	Q II/2011
Finger Liner	904-5139	Q II/2011
Blank Liner	904-5105	Q II/2011



### Blank Liner for machining

The blank liner 904-5105 is now also available from Vespel®. This offers the opportunity do machine any shape out of the blank to fit the container design for optimal ware handling.



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