# SHERWIN WILLIAMS. HIGH PERFORMANCE FLOORING JOINT GUIDELINES

The two basic joint types are Moving (dynamic) and Non-Moving (static).

### **MOVING JOINTS**

**Construction, Expansion and Isolation joints** are considered moving joints. These allow horizontal and vertical movement between the slab and adjoining structures, such as walls and columns, helping to minimize cracking where the two meet.



Prior to filling moving joints, Sherwin-Williams High Performance Flooring recommends "honoring" these joints by making a sawcut through the finished floor system at a minimum depth of <sup>3</sup>/<sub>4</sub>" deep and <sup>1</sup>/<sub>4</sub>" wide with a diamond blade saw attached to a vacuum. Refer to the joint sealant manufacturer's product data sheet for the recommended depth. A bond breaker such as backer rod (closed cell) must be added to the bottom of the joint.

Potential cracking and/or stress/stretch lines (white lines) may occur on all resinous floor systems over or on either side of moving joints if the joints are not sawcut and properly filled. Also, if there is a variance of temperature of 20 degrees or more from the time the joint is filled and coated to its operational temperature, hairline cracking could occur even on non-moving joints.

## **NON-MOVING JOINTS**

**Control and/or Contraction joints** are considered non-moving joints, which accommodate shrinkage and relieve internal stresses during the curing process of the concrete.



Prior to filling non-moving joints, be sure to prepare them by removing all laitance, debris and sealers to a depth of <sup>3</sup>/<sub>4</sub>" deep and <sup>1</sup>/<sub>4</sub>" wide with a diamond blade saw attached to a vacuum. A bond breaker such as backer rod (closed cell) may be added to the bottom. This will stop the joint material from seeping if the concrete is cracked through.

# **REPAIR OF DAMAGED/SPALLED JOINTS**

Sawcut each side of spalled area and chip out the center with a chipping hammer or consider the use of a series of blades to reach the proper width. If using multiple blades, the center blade should reach the depth of the original joint and the outer blades should achieve a cut creating a "T" shape after cutting.



#### **INSTALLATION TIMING**

The American Concrete Institute (ACI) recommends that filling of industrial floor joints be deferred 60-90 days after floor slab pour or as long as possible. This is to allow control and construction joints time to open closer to their ultimate width through the concrete shrinkage process (In freezer/cooler areas, floor should be stabilized at ultimate operating temperature for 7 days prior to installation).

Prior to treatment of joints, be sure to contact the facility's owner or manager to determine how long the concrete has cured as well as the location of moving and non-moving joints.

JOINTS	ТҮРЕ	BOND BREAKER	JOINT MATERIAL (1/4 INCH WIDE)	JOINT MATERIAL (OVER 1/4 INCH WIDE)
Moving (Dynamic)	Expansion/ Construction /Isolation	Backer Rod 1/8" wider than joint	Flexible joint material (Metzger/McGuire, VersaFlex or equivalent)	Flexible joint material (Metzger/McGuire, VersaFlex or equivalent)
Non-Moving (Static)	Control/ Contraction	Optional Backer Rod 1/8″ wider than joint	<ul> <li>Epoxy flooring systems use Resuflor<sup>™</sup> Glaze with Cab-O-Sil (No-Sag #2): Typical mix is 1 pint Resuflor Glaze hardener, 1 quart Resuflor Glaze resin, 3 quarts Cab-O-Sil (No-Sag #2)</li> <li>Poly-Crete<sup>®</sup> flooring systems use Poly-Crete SL or MD to fill joint</li> <li>MMA flooring systems use MMA SL Filler Mix</li> <li>Vent-E flooring systems use Metzger/McGuire MM-80</li> </ul>	<ul> <li>Epoxy flooring systems use Resuflor Glaze with Resuflor Screed III</li> <li>Poly-Crete flooring systems use Poly-Crete MD or WR</li> <li>MMA flooring systems use MMA SL Filler Mix or Cryl-A-Tex</li> <li>Vent-E flooring systems use Metzger/McGuire MM-80</li> </ul>

#### Refer to table below to determine which product is used where:

References:

ACI 224 "Joints in Concrete Construction" ASTM Standards "C 1193 and C-920" National Ready Mixed Concrete Association "Concrete in Practice"

Metzger/McGuire, Inc. AMPP

> In accordance with our warranty, Sherwin-Williams High Performance Flooring shall not be responsible for any claim resulting from failure to utilize product in a manner in which it was intended and in accordance with instructions provided for use of the product, such as these joint guidelines.



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