



# CrossFilm™ 2105 Expansion Joint Material

## THE ULTIMATE GAS SEAL MATERIAL FOR A FABRIC EXPANSION JOINT

CrossFilm™ 2105 is an ideal alternative to skived PTFE film as a gas seal material in flue duct expansion joints. Like skived film, CrossFilm 2105 is made solely from PTFE resins, which means that both products can perform in temperatures as high as 600°F (316°C) and that both products will be immune to chemical attack in flue gas service. But this is where the similarities end.

CrossFilm 2105 is produced using many layers of proprietary PTFE film that are cross-plied. As a consequence, the product is very nonporous. Skived PTFE film is produced by skiving a PTFE billet that may contain air pockets and other inclusions. For these reasons, the film may either contain holes or be prone to pinhole development.



CrossFilm 2105 possesses excellent stress crack resistance. As a result, its tear resistance properties are very strong. In the remote possibility that a rip develops in the product, very little, if any, tear propagation will take place in CrossFilm 2105. In comparison, skived PTFE film possesses poor tear resistance properties and, accordingly, low stress crack resistance. There is no doubt that if a tear develops in the skived product, the tear will propagate throughout the material.

When using both materials for gas seal purposes in expansion joint production, it is critical that strong, nonporous, heat sealed, overlap splices are produced. It is extremely difficult to manufacture these splices with PTFE skived films. On the other hand, producing the high performance splices in CrossFilm 2105 is very straightforward and effective.

Finally, CrossFilm 2015 can be obtained in many different colors and with unique product properties, such as a static dissipative construction. While it is possible to obtain similar properties in skived PTFE film, it is very likely that the costs will be prohibitive for the typical expansion joint project.

### CROSSFILM™ 2105

- **Excellent tear resistance:**  
**0.005" (0.127 mm) - 17.6 lbs (78.3 N)**
- **Highly nonporous, even after severe flexing**
- **Easily heat sealed**
- **Available in a number of styles/colors**

### SKIVED FILM

- **Poor tear resistance:**  
**0.005" (0.127 mm) - 1.4 lbs (6.2 N)**  
**0.010" (.254 mm) - 2.6 lbs (11.6 N)**
- **Prone to pinhole formation**
- **Difficult to heat seal**
- **Limited number of styles/colors**
- **Poor flexing capability**

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