

Using Tape or Paste Sealants With Plastic Threads

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TECHNOLOGY UPDATE

Which Threaded Joint Sealant to Use?

- Tape sealants are more susceptible to improper installation
- Paste sealants are more likely to contain incompatible chemicals
- Either type – Paste or Tape - must be properly used but NEVER use both!

Spears® Recommends a Compatible Paste

As long as the sealant is fully compatible with the plastic material, paste type sealants are far less prone to installation error. Misapplication, frequent with the use of tape sealants, cannot only produce leaks, but also frequently over-stress the plastic threaded joint. The critical element is chemical compatibility. Some “pipe dopes” and pastes contain chemicals that can produce stress cracking in plastics. Spears® **BLUE 75™** Thread Sealant has been specially formulated and tested for use with plastic piping components. Simply apply to male threads.



The Best Choice For Threaded Joints

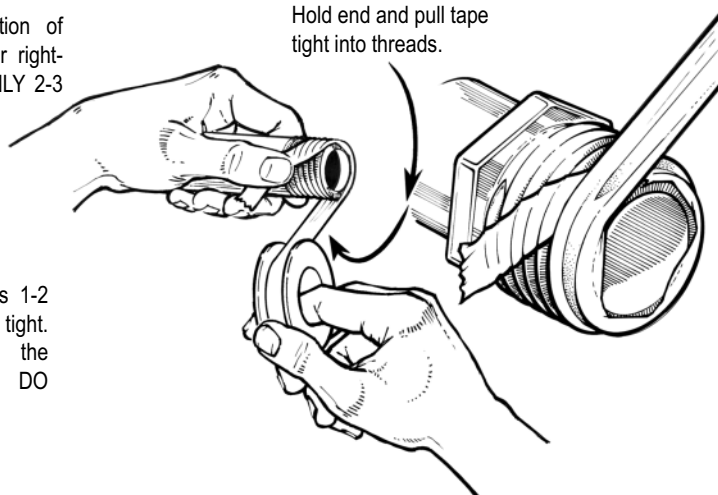
The Problem with Using TFE Tape Sealants

Thread sealants are applied only to the male threads. With a paste, you simply need to be sure the threads are fully covered, especially at the start. Any excess will be displaced between threads and spread evenly during joint assembly. In contrast, TFE tape-type sealant remains as a build-up on the thread especially when tape is not pulled tight into threads.. This creates a “wedging action” and stress to the joint during assembly. Tape is frequently over applied. Excess tape significantly increases male thread diameter, additionally stressing the joint. Tape wrapped in the wrong direction will bunch-up and create uneven sealing. Tape that is too thin will not provide sufficient sealing unless over applied. Tape is quite slick and can result in inadvertent over tightening. Using tape and paste makes this even worse! At the same time, **tape application that fails to fully cover the starting end can result in threads seizing prior to proper joint makeup and give a false sense of being tight.** Attempts to additionally tighten a joint in this situation can damage pipe or fittings.

If You *MUST* Use Tape Sealant, Use It Correctly!

Wrap Tape In Direction of Threads (clockwise for right-hand thread). Use ONLY 2-3 wraps of tape.

Hold end and pull tape tight into threads.



Use a TFE Tape Sealant with a minimum thickness of 2.5 mil.

Joint Assembly:

Tighten threaded joints 1-2 turns beyond finger tight. Avoid “backing up” the wrenched assembly. DO NOT over-tighten.

Always cover end of fitting at the start to prevent thread seizing prior to proper joint makeup.



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