**CHANGE TYPE:** Modification

**CHANGE SUMMARY:** The text was revised to require the use of thread joint sealants (aka, joint compounds, pipe dope, pipe tape).

**2021 CODE: 403.8.3 Threaded joint compounds sealing.** Threaded joints shall be made using a thread joint sealing material. Thread joint sealing materials compounds shall be nonhardening and shall be resistant to the action of liquefied petroleum gas or to any other chemical constituents of the gases to be conducted through the piping. Thread joint sealing materials shall be compatible with the pipe and fitting materials on which the sealing materials are used.

**CHANGE SIGNIFICANCE:** The code addressed pipe thread sealants but never required them to be used. Thread sealants act primarily as a lubricant to allow the threads to make up tight to form a metal-to-metal seal, and any imperfections or voids in the threads are filled in by the thread sealant material. The most common thread sealants used today are pastes made with PTFE (Teflon) and Teflon tapes. Sealing compounds must not be hardening so that pipe joints can be disassembled when necessary, shrinkage of the sealant is minimized and the material can be resilient to vibration and movement.

LP-gas can react with some pipe sealants, and this might also be the case for other gases; therefore, the text simply requires that the sealant be compatible with whatever is conveyed in the piping. The thread sealant used must be suitable for the pipe and fitting materials used. Some thread sealants can attack some pipe and fitting materials. This is more of an issue with plumbing piping, which often has plastic threads, while gas piping always involves metallic threads. Thread sealant container labels will state what pipe and fitting materials are suitable or not suitable for use with the sealant.



Threaded joint pipe tape

403.8.3

## Threaded Joint **Sealing**

This excerpt
is taken from
Significant
Changes to the
International
Plumbing/
Mechanical/
Fuel Gas Codes,
2021 Edition.



The Significant Changes series takes you directly to the most important changes that impact projects.

Key changes are identified then followed by in-depth discussion of how the change affects real-world application. Photos, tables and illustrations are included to further clarify application.

Available for the IBC, IRC, IFC, IECC and IPC/IMC/IFGC, the Significant Changes publications are very useful training and review tools for transitioning to a new code edition.