August 27th, 2020

Re: CPVC Compatibility with Hilti Sealants and Chemical Products

Pipe made of Chlorinated Polyvinyl Chloride (CPVC), has been used in general plumbing for over 50 years and extensively in fire sprinkler systems for over 35 years.[1] CPVC has many benefits and advantages, however chemical resistance issues can appear when the CPVC is exposed to, or comes in contact with, materials the CPVC is not compatible with. This contact combined with numerous other factors such as, temperature, environment, etc, can cause issues in the CPVC. These issues may show up in the pipe years after installation, as softening, degradation, or environmental stress cracking (ESC).[2] For these reasons it is important for those working on or around CPVC to verify it is compatible with the products that may come into contact with CPVC – even if inadvertent.[3]

Since the compatibility issue is unique, and specifically related, to the CPVC, CPVC pipe manufacturers have undertaken the responsibility to develop programs to determine compatibility with ancillary products expected to contact their pipe – glues, primers, firestop, sealants... – and publish a list of compatible products. Due to variations in CPVC formulation and testing procedures, these compatibility lists may differ between CPVC manufacturers. Therefore: **only apply ancillary products which are specifically approved for use on the brand of CPVC being used**. If an ancillary product is not on the compatibility list, contact the CPVC manufacturer before use. Never assume the absense of a prohibition indicates suitability, because many ancillary products have a variety of applications and their manufacturers typically do not address incompatibility.[4] If there is not an affirmative statement of compatibility by the CPVC manufacturer for an ancillary product, **do not use it on CPVC!**

[1] https://plasticpipe.org/building-construction/bcd-cpvc.html
[2] https://www.corzan.com/en-us/chemical-resistance-and-chemical-applications
[3] E.g., cabling draped across the CPVC pipe, or overspray from other activities.
[4] I.e., manufacturers identify their products' intended applications. It is generally not feasible to attempt to identify and list every unintended use that may be problematic.

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