



SPEARS® MANUFACTURING COMPANY
CORPORATE OFFICE
15853 OLDEN STREET • SYLMAR, CALIFORNIA 91342
MAILING ADDRESS: P.O. BOX 9203 • SYLMAR, CALIFORNIA 91392
Telephone (818) 364-1611 • Fax (818) 364-6945
www.spearsmfg.com

Potential Damage to CPVC Fire Sprinkler Systems From Spray Foam Insulation

Spray Foam Insulation Systems typically used in attics to insulate from heat loss have in some cases caused damage to CPVC Fire Sprinkler Systems from either Environmental Stress Cracking (ESC) or adverse Heat Distortion.

Environmental Stress Cracking

In plastics, this is a crazing, cracking, or fracturing in the presence of an incompatible environment and some form of stress. Most often it is a chemical environment, thus "chemically induced Environmental Stress Cracking or simply, "ESC". This is sometimes hard to detect until a major problem develops. The foam insulation system manufacturer must be consulted to insure full compatibility of their product with CPVC piping systems.

Heat Distortion

Heat is generated by the reaction of spray foam insulation with air during application. The temperatures developed can soften the material and easily result in adverse expansion or even ballooning in CPVC piping systems if improperly applied. The foam insulation system manufacturer must be consulted to insure the proper method of application is used to prevent heat distortion in CPVC piping systems.