

FLOWGUARD GOLD®

Guidelines for use in **HYDRONIC HEATING APPLICATIONS**

BOW FlowGuard Gold is well known as a plumbing material, providing trouble free plumbing systems to millions of homes and businesses. BOW FlowGuard Gold is also an excellent material for heating applications, and can be used in almost any hydronic heating system.

Because BOW FlowGuard Gold piping systems can operate continuously at up to 200° F/80 psi (as per ASTM F441), they are ideal for all types of hot water heating systems, including hot water baseboards. And, because BOW FlowGuard Gold joints are chemically fused, not just bonded, they become as strong as the pipe. This eliminates any concerns about joint failure under thermally cycled conditions found in heating applications. Because BOW FlowGuard Gold has one of the lowest permeation rates of any thermoplastic, it is inherently resistant to oxygen permeation, and is capable of meeting industry accepted oxygen permeation limits without the need for an added barrier layer.

Some important things to keep in mind when installing or using BOW FlowGuard Gold in heating applications

- 1) Temperature and pressure limitations of 200° F and 80 psi must always be respected. In cases where temperatures are lower than 200° F, higher pressures are permitted, as prescribed in Bow's installation guidelines as well as the plumbing codes.
- 2) Only fresh water is to be used to fill a system using BOW FlowGuard Gold components. Additives, such as lubricants, inhibitors, antifreezes, etc., must not be used unless they have been proven to be compatible with BOW FlowGuard Gold.
- 3) Transitions to other materials such as copper or steel should be made with threaded adapters.

For adapters requiring thread sealant, only teflon tape or teflon paste should be used. Other pipe thread compounds must be avoided unless they are compatible with BOW FlowGuard Gold, and other components in the system must be clean and free of oil or other contaminants. Particular attention should be paid to cleanliness of threads on mating parts.

- 4) Where a transition is necessary, adapters with metal threads and BOW FlowGuard Gold sockets are preferred, especially if water temperatures are likely to cycle frequently and exceed 140° F.

Familiarity with BOW FlowGuard Gold will allow users to take full advantage of it's unique properties in many different types of applications.

For more information about BOW FlowGuard Gold please contact BOW.

