Geothermal

Polytubes 2009 Inc. extrudesÂ its Geothermal pipe from 100% VirginÂ High Density Polyethylene (H.D.P.E) resin.Â Our H.D.P.E material is chosen for its excellent combination of toughness, durability, and Environmental stress crack resistance.Â Our Geothermal resins are listed by the Canadian Standard Association (CSA) and the Plastic Pipe Institute (PPI) as a PE3608 resin.Â The resin has a minimum hydrostatic design basis (HDB) of 1600 psi for water at 23oC.Â The design working stress at 23oC is a minimum 800 psi with a minimum cell classification of PE345464C as per ASTM D3350-08.

Polytubes offers Geothermal piping in black, sizes from 1/2" to 36" applications.Â Polytubes Geothermal pipe comes in packaging configurations of sticks, coils and large reels.

Geothermal Info:Â

A Geothermal Heating/Cooling System, also known as a ground source system, uses the earth as either a heat source when operating in heating mode, or as a heat sink when operating in cooling mode.Â All geothermal systems are characterized by an external (ground) loop and an internal (building) loop, each containing refrigerant.Â These loops can deliver heating and cooling directly to ground or building, or via heat exchangers, through secondary loops containing water (or an antifreeze mixture with water and propylene glycol, denatured alcohol, or methanol).Â Secondary loops are popular for ground use because they are not pressurized, so High Density Polyethylene Piping can be used, and because they reduce the amount of expensive refrigerant required.

Geothermal Systems use one of the following types of external loops:
- Open Loop
- Closed Vertical Loop
- Closed Horizontal Loop

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