



DATE: August 14, 2017

TO: Whom it may concern

FROM: Derek Hanson

RE:UV Radiation affects on gasketed PVC Pipe.

Northern Pipe Products Inc actively follows the PVC pipe design and construction procedures recommended by the Uni-Bell PVC Pipe Association. Uni-Bell has performed numerous studies on ultraviolet radiation on PVC gasketed pipe.

All PVC pipe compound is formulated with a protection from UV Radiation. The compound formula's UV protection allows the PVC pipe to be stored outdoors for periods exceeding two years. The PVC pipe will suffer slight surface discoloration when exposed to ultraviolet radiation from the sunlight, but the resulting reaction occurs only on the exposed surface of the pipe and to extremely shallow depths. The effect does not continue when exposure to sunlight is terminated. UV radiation results in a change in the pipe's surface color while other properties such as tensile strength (pressure rating) and modulus of elasticity (pipe stiffness) are not adversely affected. The rubber gasket inside of the gasketed PVC pipe joint is protected enough to be not affected by the UV radiation.

Northern Pipe Products Inc. does not cover the gasketed pipe in storage nor does it recommend that the Contractor cover the pipe delivered to the construction site during the installation timeframe. Slight surface discoloration will not affect the quality or performance of the pipe.

Sincerely,

A handwritten signature in black ink, appearing to read 'Derek Hanson', is written over a light grey circular watermark that contains the letters 'NPP'.

Derek Hanson
VP Engineering
Northern Pipe Products Inc.