



UV and UltraTech Rotomolded Polyethylene

SPILL CONTAINMENT PRODUCTS

How long can I expect my UltraTech polyethylene (PE) spill containment product to last outdoors?

UltraTech's general response to this question is at least ten (10) years. You can expect longer, but the actual life is dependent on several factors. UltraTech has been making outdoor spill containment products since 1993. We have a good sense for realistic life expectancy based on all those years of experience. UltraTech uses the highest rated UV package in the resin formulation it uses to create the longest outdoor life available for a PE product.

What are the factors that affect the life of a PE spill containment product outdoors?

The most important environmental factors are ultraviolet exposure and chemical exposure. In the absence of chemical compatibility concerns (determined by the UltraTech compatibility chart for PE products), the next most important factor for outdoor, polyethylene spill containment products will be ultraviolet irradiation (UV) exposure. The most important factors with reference to UV are thickness, UV Inhibitor (UVI) content, and pigment color, type and concentration. Ultraviolet irradiation exposure causes molecular structure and bond changes that result in embrittlement of PE. Very thin PE can become brittle and fracture in less than a year (think contractor's PE visquene sheeting). Thicker parts take longer to break down. The addition of UV Inhibitors to the PE allow it sustain more UV exposure without breaking down. Darker pigments, inorganic pigments, and higher concentrations of pigments also individually and collectively will give PE a longer life before appreciable UV damage occurs.

What is the longest life of an outdoor spill containment product you have seen?

There is an outdoor spill containment product that has been in use in northeast Florida since 1986 and is still in active use today. UltraTech suggests its Ultra-Track Pans, used for outdoor railroad track spill containment, have a minimum of a twenty year life.

If you have further questions or require additional information, please visit our website at SpillContainment.com or contact us at 904-292-1611.