Polycrete 1600

Winged Seal Systems

Description

Polycrete 1600 is an elastomeric concrete, engineered for use as a nosing material in conjunction with our Polycrete 2020 bedding material for our expansion joint systems. The material is an polyurethane blend that resists wear due to the impact of vehicular loadings and also resists cracking at low temperatures.

The Polycrete system outperforms traditional nosing and bedding materials such as concrete, epoxies, and asphalt. These materials have historically shown breakdown due to cracking and allowed moisture and salts to penetrate the concrete surrounding the expansion joint system. If moisture and salt travel down through the joint opening to the structure's support members it may cause premature deterioration of those members.

The Polycrete system has a track record of excellent performance. It is used to anchor our extensive line of expansion joint products including applications with the CR-Series, DW-Series, and WM-Series winged seals as well as our Plaza Deck Systems.

Physical Properties

Polycrete 1600 consists of three (3) items: two resin components and a pre-measured, blended aggregate. The material is an ambient-cured polyurethane mixture. The product meets the physical property requirements shown in Table 1.

TABLE 1 – Physical Properties of Polycrete 1600

Property	ASTM Test Method	Requirement
Tensile strength, min.	D638	1200 psi
Elongation at break, min. %	D638	50%
Hardness, Type A durometer	D2240 (modified)	80A
Compression set 22h @ 158°F	D395 (method B)	48%
Tear resistance, min.	D624	174 lb/in2
Water absorption, min (weight)	D570	1.2%
Heat shrinkage, min	D1299	0.65%
Pot life, min		20 minutes @ 70° F 10 minutes @ 80° F
Oven Aging at 70°F for 72h	D638	
Tensile strength, min		1250 psi
Elongation, loss max		198
Bond test (on cured binder-stone Mixture, direct tension method After 25 freeze-thaw cycles	See Note A	250 psi

Features and Benefits

Ideal for Rehabilitation Work – The Polycrete system along with our seals, quickly replaces urethane wide joint products with little or no modification to the existing recess.

Permanent Header System – The Polycrete system provides durability under vehicular loadings, unlike other cementitious and epoxy products. Its elastomeric properties resist cracking, particularly in colder temperatures.

Performance Acknowledged by Prime Specifiers – Major specifiers throughout North America include the Polycrete system as a primary item for expansion joint work.