

SECTION 1018 -- EPOXY COMPOUNDS AND ADHESIVES

1018.01 -- Description

This specification provides requirements for two-component, epoxy-resin bonding systems and adhesives for application to portland cement concrete.

1018.02 -- Material Characteristics

1. Epoxy-resin bonding systems shall conform to the requirements of ASTM C 881. Approved systems are shown on the NDR Approved Products List.

2. The classification of Epoxy-Resin Bonding Systems is as follows:

a. Type I - For use in non-load bearing applications for bonding hardened concrete and other material to hardened concrete.

Type II - For use in non-load bearing applications for bonding freshly mixed concrete to hardened concrete.

Type III - For use in bonding skid resistant materials to hardened concrete, and as a binder in epoxy mortars or epoxy concretes.

Type IV - For use in load bearing applications for bonding hardened concrete and other material to hardened concrete.

Type V - For use in load bearing applications for bonding freshly mixed concrete to hardened concrete.

b. Grade 1 - Low viscosity.

Grade 2 - Medium viscosity.

Grade 3 - Non-sagging consistency.

c. Class A - For use below 4°C; the lowest allowable temperature to be defined by the manufacturer of the product.

Class B - For use between 4°C and 15°C.

Class C - For use above 15°C; the highest allowable temperature to be defined by the manufacturer of the product.

Class D - For use between 4°C and 18°C.

Class E - For use between 15°C and 26°C.

Class F - For use between 24°C and 32°C.

1018.03 -- Procedures

1. The compounds shall be of the type and grade specified in the plans or as directed by the Engineer.
2. The class of the compounds shall be selected for use according to climatic conditions at the time of application.
3. All bonding surfaces shall be clean and free of all oil, dirt, grease, or any other materials which would prevent bonding.
4. Mixing and application shall be in strict accordance with the manufacturer's instructions.

1018.04 -- Acceptance Requirements

1. Epoxy compounds and adhesives approved for use are shown on the NDR Approved Products List.
2. Epoxy compounds that are not on the NDR Approved Products List may be accepted based on a manufacturer's certificate of compliance.