

ZG 321 Non-Concrete Requirements

1. Scope

This specification outlines the minimum material requirements for non-concrete equipment bases to be used in conjunction with company-owned, primary-rated equipment. The specification applies whether the equipment base is to be installed by company personnel, contractors, customer, or the supplier.

2. Applicable Documents

The following publications shall be used in conjunction with this material specification, and form a part of this material specification to the extent specified herein. When a referenced publication is superseded by an approved revision, the revision shall apply.

2.1. Company Publications

ZG 301, *General Equipment Base and Enclosure Requirements*
 ZG 351, *Single-Phase Transformer Flat Pads*
 ZG 411, *Box Pad—Single-Phase Transformer*
 ZG 421, *Box Pad—Sectionalizing Cabinets*
 ZG 441, *Single-Phase Fusing Cabinet Box Pads*
 ZG 451, *Three-Phase Fusing Cabinet Box Pads*
 ZG 461, *Box Pad—Switchgear*

3. General

3.1. Application Information

This specification states material requirements that are applicable to all non-concrete equipment bases.

4. Applicable Stock Item Numbers

Materials being submitted for the following company stock item numbers are subject to evaluation in accordance with requirements in this specification.

4.1. Stock Item Numbers

1720600, PAD, FLAT, TRANSFORMER, 1-PHASE, 25-75 KVA
 1720605, PAD, BOX, TRANSFORMER, 1-PHASE, 25-75 KVA
 1720620, PAD, BOX, SECTIONALIZING CABINET, 1-PHASE, 15/25 KV
 1720625, PAD, BOX, SECTIONALIZING CABINET, 3-PHASE, 15KV
 1720627, PAD, BOX, SECTIONALIZING CABINET, 3-PHASE, 25 KV
 1720640, PAD, BOX, FUSE CABINET, 1-PHASE, 15/25 KV
 1720650, PAD, BOX, FUSE CABINET, 3-PHASE, 15/25 KV, 3-4 POSITION

1720652, PAD, BOX, FUSE CABINET, 3-PHASE, 25/35 KV, 5 POSITION
 1750444, PAD, BOX, SWITCHGEAR, 15 KV, OIL/VACUUM
 1750449, PAD, BOX, SWITCHGEAR, 25 KV, OIL/VACUUM
 1750531, PAD, BOX, SWITCHGEAR, 15 KV, AIR INSULATED
 1750532, PAD, BOX, SWITCHGEAR, 25 KV, AIR INSULATED

5. Design and Manufacturing Requirements

The purpose of a non-concrete equipment base is to support the weight of primary-rated, pad-mounted equipment.

5.1. Non-Concrete Materials

Material used shall be polymer concrete, reinforced polymer mortar, fiberglass, or other materials as approved by company engineering. Material shall be applied in sufficient thickness to prevent flexing. Materials used shall meet all requirements in specification ZG 301, *General Equipment Base and Enclosure Requirements*.

5.2. Forms

Female forms shall be used for non-concrete materials. Forms may be of wood or metal selected to produce a smooth surface finish. They shall be constructed sufficiently tight to prevent leakage of material. They shall be securely braced and shored to prevent displacement and to safely support construction loads. Forms shall be removed in a manner and at a time that will ensure the complete safety of the structure. Any non-concrete base or substructure that may be stacked shall have stacking shelves or some other device to prevent "locking" between bases.

5.3. Surfaces

The finished top surface shall be flat and free of pockets and honeycomb. Where minor defects occur, they shall be patched with the same material used for the equipment base, and the flat surface restored.

5.4. Reinforcement

The supplier shall determine the proper placement of fiberglass reinforcement, additional wall thickness, or ribs to ensure compliance with strength requirements of ANSI/SCTE 77 2007, Tier 15.

5.5. Identification Sticker

Each unit must have an identification sticker to show the manufacturer's name, catalog number, manufacturing date, company stock item number, and voltage rating.

6. Issuing Department

The engineering standards and technical services department of PacifiCorp published this material specification. This material specification shall be used and duplicated only in support of company projects.

Material Specification

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