

CHAPTER 20

ALUMINUM

SECTION BC 2001 GENERAL

2001.1 Scope. This chapter shall govern the quality, design, fabrication and erection of aluminum.

SECTION BC 2002 MATERIALS

2002.1 General. Aluminum used for structural purposes in buildings and structures shall comply with AA ASM 35 and Parts 1-A and 1-B of the Aluminum Design Manual. The nominal loads shall be the minimum design loads required by Chapter 16 of this code.

SECTION BC 2003 ADDITIONAL REQUIREMENTS

2003.1 Identification. Aluminum for structural elements shall at all times in the fabricator's plant, be marked, segregated, or otherwise handled so that the separate alloys and tempers are positively identified, and after completion of fabrication shall be marked to identify the alloy and temper. Such markings shall be affixed to completed members and assemblies or to boxed or bundled shipments of multiple units prior to shipment from the fabricator's plant.

2003.2 Quality control. In addition to the requirements of Section 2002, the quality control of aluminum used for structural purposes shall comply with Sections 2003.2.1 and 2003.2.2.

2003.2.1 Reference. Welding operations in structural connections where the calculated stresses in welds are 50 percent or more of the basic allowable values shall be subjected to the special inspections as required by Chapter 17 of this code.

2003.2.2 Welding operations. Welding operations performed on aluminum used for structural purposes shall comply with the following:

1. Welding work shall be performed only by persons who have obtained a license from the commissioner.
2. Tack welds that are not later incorporated into finished welds carrying calculated stress shall not be considered as structural welds.
3. The inspection of welding operations shall include a check to ascertain that the welders employed on the work have the required license.

2003.3 Erection. In addition to the requirements of Section 2002, the erection of aluminum used for structural purposes shall comply with Sections 2003.3.1 through 2003.3.3.

2003.3.1 Bracing. All framework shall be carried up true and plumb. Temporary bracing shall be provided to support all loads imposed upon the framework during construction

that are in excess of those for which the framework was designed.

2003.3.2 Temporary connections. As erection progresses, the work shall be securely bolted, or welded, to resist all dead loads, wind, and erection stresses.

2003.3.3 Alignment. The structure shall be properly aligned before riveting, permanent bolting, or welding is performed.

