

412.11.05 Stainless Steel Reinforcing Bar

Stainless steel reinforcing bars and spirals shall conform to ASTM A276 and ASTM A955M, minimum Grade 420, except as noted. Nominal dimensions, unit masses and deformation requirements for Metric bar sizes shall conform to CAN/CSA G30.18.

Stainless steel reinforcing bars shall be deformed unless indicated otherwise on the Drawings.

Stainless steel reinforcing bars shall be of a stainless steel type specified in Table 412-B.

TABLE 412-B: TYPES OF STAINLESS STEEL

TYPE / ASTM DESIGNATION	UNS DESIGNATION
316 LN – A955	S31653
DUPLEX 2205 – A955	S31803
DUPLEX 2304*	S32304

* Chemical composition shall be within the ranges identified in Table 1 (Typical Composition %) of and in conformance to the requirements of ASTM A276. The dimensioning and mechanical properties shall be in conformance with ASTM A955M.

Unless otherwise specified, only one type of stainless reinforcing steel shall be supplied for use throughout the project.

Stainless steel reinforcing bars shall be hot-rolled, de-scaled and pickled to the required mechanical properties and dimensions.

Stainless steel reinforcing bars shall be free of deposits of iron and non-stainless steel.

Fabrication of stainless steel reinforcing bars shall be such that the bar surfaces are not contaminated with deposits of iron and non stainless steel and that the surfaces are not damaged due to straightening from coil.

Tie wire used to tie stainless steel reinforcing bars shall be stainless steel wire of a type listed in Table 412-B except that tie wire used to tie stainless steel reinforcing bars to epoxy coated reinforcing steel bars shall be epoxy coated wire. Tie wire shall be 1.6mm in diameter.