CFMEU OHS ALERT

MARCH 2022

ONLY GRADE 4.6 NOT GRADE 8.8 BOLTS FOR CAST-IN FERRULES

FOR EVERYONE'S SAFETY!

✅ GRADE 4.6 ❌ GRADE 8.8

A large proportion of precast panels now rely on cast in ferrules to safely fix / secure panel braces to the precast panel. A critical part of this process is to ensure that the capacity of the bolt does not exceed the capacity of the ferrule. This is entirely consistent and in-line with the Australian Standard AS3850.1: 2015 'Prefabricated concrete elements' which states (Clause 2.5.4 (d) that the tensile capacity of the bolt is to be less than the ferrule. The majority of quality ferrule manufactures specify the use of grade 4.6 bolts to ensure this occurs. If grade 8.8 bolts are used, it can too easily result in the bolt having a higher tensile capacity than the ferrule – thereby overriding the in-built safety design feature of the ferrule[1].

Further to this, AS3850.1 Prefabricated concrete elements states that a ferrule is defined as an element to take a threaded bolt, **NOT** a threaded bar (emphasis highlighted)[2].

Where connections are bolted into a cast-in ferrule, then a Grade 4.6 bolt MUST be specified rather than a Grade 8.8 bolt so that the bolt will fail in tension in a ductile manner before the ferrule fails..." (emphasis added)3

MAKE SURE YOUR CAST IN FERRULES ARE ONLY USING GRADE 4.6 BOLTS. CALL YOUR ORGANIZER OR CFMEU OFFICE FOR FURTHER ADVICE!

1 Safety Soap-Box, WorkSafe Victoria, 22 September 2017
2 The use of cast-in ferrules as structural connections – available on the internet:
https://www.cross-safety.org/uk/safety-information/cross-safety-report/use-cast-ferrules-structural-connections-993
3 Ibid

CONTACT THE CFMEU ON 93413444

CFMEU VICTORIA