

CODE

COMMENTARY

Table 25.7.3.6—Lap length for spiral reinforcement

Reinforcement	Coating	Ends of lapped spiral bar or wire	Lap length mm
Deformed bar	Uncoated or zinc-coated (galvanized)	Hook not required	$48d_b$
		Standard hook of 25.3.2 ^[1]	$48d_b$
	Epoxy-coated or zinc and epoxy dual-coated	Hook not required	$72d_b$
Deformed wire	Uncoated	Hook not required	$48d_b$
		Standard hook of 25.3.2 ^[1]	$48d_b$
	Epoxy-coated	Hook not required	$72d_b$
Plain bar	Uncoated or zinc-coated (galvanized)	Hook not required	$72d_b$
		Standard hook of 25.3.2 ^[1]	$48d_b$
Plain wire	Uncoated	Hook not required	$72d_b$
		Standard hook of 25.3.2 ^[1]	$48d_b$

^[1]Hooks shall be embedded within the core confined by the spiral.

25.7.4 Hoops

25.7.4.1 Hoops shall consist of a closed tie or continuously wound tie, which can consist of several reinforcement elements each having seismic hooks at both ends.

25.7.4.2 The ends of the reinforcement elements in hoops shall be anchored using seismic hooks that conform to 25.3.4 and engage a longitudinal bar. A hoop shall not be made up of interlocking headed deformed bars.

25.8—Post-tensioning anchorages and couplers

25.8.1 Anchorages and couplers for tendons shall develop at least 95 percent of f_{pu} when tested in an unbonded condition, without exceeding anticipated set.

R25.7.4 Hoops

R25.7.4.1 Refer to R25.7.2.4.

R25.8—Post-tensioning anchorages and couplers

R25.8.1 The required strength of the tendon-anchorage or tendon-coupler assemblies for both unbonded and bonded tendons, when tested in an unbonded state, is based on 95 percent of the specified tensile strength of the prestressing reinforcement in the test. The prestressing reinforcement is required to comply with the minimum provisions of the applicable ASTM standards as prescribed in 20.3.1. The specified strength of anchorages and couplers exceeds the maximum design strength of the prestressing reinforcement by a substantial margin and, at the same time, recognizes the stress-riser effects associated with most available post-tensioning anchorages and couplers. Anchorage and coupler strength should be attained with a minimum amount of permanent deformation and successive set, recognizing that some deformation and set will occur when testing to failure. Tendon assemblies should conform to the 2 percent elongation requirements in ACI 423.7.

Static and fatigue test methods for anchorage and couplers are provided in ICC-ES Acceptance Criteria AC303 (2011).