WIRE REINFORCEMENT INSTITUTE®

See Notes | Permitted | Conditionally Permitted – See Notes

ACI 318-25 TABLE 20.2.2.4(a) – Deformed Wire and Welded Deformed Wire Reinforcement

Usage	Application		Maximum value of f_y or f_{yt} permitted for design calculations, psi	Deformed Wires	Welded Deformed Wire Reinforcement
Flexure; axial force; and shrinkage and temperature	Special seismic systems	Special moment frames	80,000	(3)	(3)
		Special structural walls	100,000	(3)	(3)
	Other		100,000		
Lateral support of longitudinal bars; or concrete confinement	Special seismic systems		100,000		(1)
	Spirals		100,000		(2)
	Other		80,000		
Shear	Special seismic systems	Special moment frames	80,000		(1)
		Special structural walls	100,000		(1)
	Spirals		60,000		(2)
	Shear friction		60,000		
	Stirrups, ties, hoops		60,000		
			80,000	(3)	
Torsion	Longitudinal and transverse		60,000		
Anchor reinforcement	Seismic Design Category C, D, E, or F		80,000	(3)	(3)
	Other		80,000		
Regions designed using strut-and-tie method	Longitudinal ties		80,000		
	Other		60,000		

1. Use ASTM A1064 welded wire reinforcement with hooked curtailment in these applications OR, per R20.2.2.4, through Code Section 1.10, provide an approved non-hooked product with welded anchorages capable of developing $1.25f_y$ or $1.25\ f_{yt}$, or tensile strength of the wire, whichever is less.
2. WWR mats conforming to ASTM A1064 cannot be produced in spiral/helical form. At time of this publication, "circular cage welding machines" in the marketplace DO NOT produce material that is in conformance with ASTM A1064. This welded circular cage material requires approval by the Design Professional of Record.
3. Not Permitted