

Weld Inspection: Inspection Classes

Nomenclature, scope and types of test

Inspection classes for fusion welding (F) and stud welding (S)								
Inspection class (PK) required	Standard	PK 0 ¹	PK 1	PK 2	PK 3	PK B ²	PK 9 ³	Comment
		F				S	F, S	
Visual test	F ISO 17637	X	X	X	X	X	by arrangement	For welds of assessment groups D and E, as well as weld studs with minor function, a reduced visual test (quantity, position / weld length, type of stud) can be agreed upon.
	S: ISO 14555							
Welding Procedure Specification (WPS)	F ISO 15609-1		X	X	X	X		
	S: ISO 14555							
Surface crack inspection	F: ISO 17638 ISO 23278			X	X			Method = Magnetic particle test
Macro-etch examination	F: ISO 17639 ISO 5817			X	X			
Hardness testing	F: ISO 9015-1				X			Method = Row of indentations (R)
Material analysis	respective material F: standard (e.g., DIN EN 10025)				X			Assessment of the chemical composition and strength (e.g., via hardness conversion) or with inspection certificate 3.1 or 3.2 (DIN EN 10204)
Bending test	S: ISO 14555					X		Bending test according to ISO 14555 - figure 2 a), b) or c)
Other	F, S: by arrangement						supplementary or replacement test(s) by arrangement	
X = required - quantity, sample location as agreed								
² PK B for stud welding: only one inspection class required								
¹ Inspection Class PK 0 for Evaluation Group 'E': only visual inspection required								
³ PK 9 for special cases: Scope of inspection by arrangement								