



Ducast Factory LLC
Quality plan for Access covers and Grates AS 3996-2019

Aspect of inspection	Method of inspection	Frequency of inspection	Document retention period
(A) Receiving inspection			
Steel/iron scrap	Chemical analysis	Each delivery	1 Year
Pig iron	Chemical analysis	Each delivery	1 Year
Scrap returns	Chemical analysis	Each ladle	1 Year
Additives	Supplier test certificate	Each delivery	1 Year
New sand for moulds/cores	Supplier test certificate	Each delivery	1 Year
	Sieve Analysis	Each delivery ⁽¹⁾	
Recycled sand for moulds/cores	Not applicable		1 Year
(B) Process control			
Moulding sand characteristics	Laboratory	Minimum once in a shift	1 Year
Mould	Visually	Regularly	-
Ductile Iron additives	Weigh/measure	Each treatment ladle	-
Pouring temperature	Measure	Frequently	1 Year
Composition of metal/analysis	Spectro Analysis	Each treatment	5 Years
Mechanical Properties	AS 1831 Ductile Cast Iron	1 Test bar /Day (Gr.500/7)	5 Years
- tensile strength			
- elongation			
- nodularity		Each treatment ladle	
(C) product testing of finished products			
General for surface defects	Visual	Every unit	5 Years
Dimesnions as per drawing	measure	Once per batch (2)	5 Years
Test load (Load Bearing Capacity)	Test	Once per batch (2)	5 Years
Water tightness	Test at third party lab	At any change of design/material	5 Years
Gas tightness	Test at third party lab	At any change of design/material	5 Years
Slip resistance	Test at third party lab	At any change of design	5 Years
Cover uplift test	Test at third party lab	At any change of design	5 Years
Marking	Visual	Once per batch	1 Year
Painting	Measure (Thickness)	Random ⁽⁴⁾	1 Year
(A-6) Calibration, Packaging, Non Conforming Product			
Tensile Testing Machine	Calibration Certificate	Once in a year	1 Year
Load testing machine	Calibration Certificate	Once in a year	1 Year
Other measuring instruments	Calibration Certificate	Once in a year ⁽⁵⁾	1 Year
Packaging	Visual	Regularly	-
Non Conforming products	Inspection	Daily	1 Year
⁽¹⁾ Random checks for material received from suppliers having certified quality assurance system. ⁽²⁾ Every modification on the pattern ⁽³⁾ At least once in 12 months. ⁽⁴⁾ Only for epoxy coatings ⁽⁵⁾ Calibration or verification with calibrated gauges.			
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