ArcelorMittal IF 300 High strength IF steel, Cold rolled

Category : Metal , Ferrous Metal , Alloy Steel

Material Notes:

Available in the following: Extragal®/Galvannealed (HX300YD+Z/+ZF)Description: These steels were designed to provide an excellent combination of drawability and mechanical strength based on their specific interstitial free (IF) metallurgy. IF180 offers drawability similar to that of ArcelorMittal 04 combined with tensile strength comparable to that of H220, for example. These steels are hardened by adding manganese, silicon and phosphorous in solid solution to the ferrite. The metallurgy of IF steels optimizes their drawability.Their low YS/UTS ratio and high strain hardening coefficient n ensure excellent deep-drawability and good strain redistribution.Their high strain ratio r ensures good deformation behavior, making them suitable for deep-drawing.These steels are particularly suitable for complex parts requiring high mechanical strength, such as wheel arches, toe-boards, reinforcements, etc. These steels have high strain hardening potential during forming, lending deep-drawn parts (trunks, tailgates, doors, linings, wheel arches, etc.) good dent resistance. The IF180 to IF 260 grades can be used, with certain coatings, to manufacture visible parts such as door panels. The IF 300 grade is designed for more complex structural parts (longitudinal beams, cross members, suspension and chassis components, etc.).Application: With their high mechanical strength guaranteeing good fatigue and impact resistance, these steels are intended for structural parts (longitudinal beams, cross members, B-pillars, etc.) as well as for skin parts, in which they provide good indentation resistance. In contrast to that of conventional drawing qualities, the weight reduction potential of these products increases with drawing depth.Information provided by ArcelorMittal

Order this product through the following link:
http://www.lookpolymers.com/polymer_ArcelorMittal-IF-300-High-strength-IF-steel-Cold-rolled.php

Mechanical Properties	Metric	English	Comments
Tensile Strength, Ultimate	400 - 460 MPa	58000 - 66700 psi	
Tensile Strength, Yield	300 - 340 MPa	43500 - 49300 psi	
Elongation at Break	>= 28 %	>= 28 %	L₀=80 mm, th<3 mm
Fatigue Strength	<= 350 MPa @# of Cycles 2.00e+6	<= 50800 psi @# of Cycles 2.00e+6	
	<= 350 MPa @# of Cycles 1.00e+7	<= 50800 psi @# of Cycles 1.00e+7	
	<= 375 MPa @# of Cycles 100000	<= 54400 psi @# of Cycles 100000	

Component Elements Properties	Metric	English	Comments
Carbon, C	<= 0.010 %	<= 0.010 %	
Iron, Fe	>= 98.49 %	>= 98.49 %	as balance
Manganese, Mn	<= 1.0 %	<= 1.0 %	

Component Elements Properties	Metric	English	Comments

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