## ArcelorMittal Complex Phase Steel 800 Y500 Very high strength steel, Cold Rolled Steel

Category : Metal , Ferrous Metal , Alloy Steel

## **Material Notes:**

Available in the following: uncoated (HCT780C) and electrogalvanized (HCT780C+ZE)Description: The Complex Phase family of steels supplements ArcelorMittal's VHSS (very high strength steel) product range. These steels are cold formed to make lightweight structural elements. A number of automotive parts, such as sills and door reinforcements, have simple shapes and the steel is therefore only slightly deformed. For this reason, ArcelorMittal has added the Complex Phase family of steels to its range. These steels offer high as-delivered yield strength and good bendability and stretch flangeability. Applications: Given their high energy absorption capacity and fatigue strength, these grades are particularly well suited for automotive safety components requiring good impact strength and for suspension system components. Information provided by ArcelorMittal

## Order this product through the following link:

http://www.lookpolymers.com/polymer\_ArcelorMittal-Complex-Phase-Steel-800-Y500-Very-high-strength-steel-Cold-Rolled-Steel.php

Mechanical Properties	Metric	English	Comments
Tensile Strength, Ultimate	780 - 900 MPa	113000 - 131000 psi	
Tensile Strength, Yield	500 - 850 MPa	72500 - 123000 psi	
Elongation at Break	>= 13 %	>= 13 %	L <sub>0</sub> =80 mm, th<3 mm
Fatigue Strength	<= 560 MPa	<= 81200 psi	
	@# of Cycles 2.00e+6	@# of Cycles 2.00e+6	
	<= 560 MPa	<= 81200 psi	
	@# of Cycles 1.00e+7	@# of Cycles 1.00e+7	
	<= 750 MPa	<= 109000 psi	
	@# of Cycles 100000	@# of Cycles 100000	

Component Elements Properties	Metric	English	Comments
Carbon, C	<= 0.17 %	<= 0.17 %	
Iron, Fe	>= 97.03 %	>= 97.03 %	as balance
Manganese, Mn	<= 2.2 %	<= 2.2 %	
Silicon, Si	<= 0.60 %	<= 0.60 %	

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