

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

Category: Metal, Ferrous Metal, Alloy Steel

## **Material Notes:**

Available in the following: uncoated (HCT780C) and Extragal®/Galvannealed (HCT780C+Z)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 asdelivered 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-Very-high-strength-steel-Hot-Rolled-Steel.php

| Mechanical Properties      | Metric               | English              | Comments                       |
|----------------------------|----------------------|----------------------|--------------------------------|
| Tensile Strength, Ultimate | >= 780 MPa           | >= 113000 psi        |                                |
| Tensile Strength, Yield    | 680 - 830 MPa        | 98600 - 120000 psi   |                                |
| Elongation at Break        | >= 10 %              | >= 10 %              | L <sub>0</sub> =80 mm, th<3 mm |
| Fatigue Strength           | <= 600 MPa           | <= 87000 psi         |                                |
|                            | @# of Cycles 2.00e+6 | @# of Cycles 2.00e+6 |                                |
|                            | <= 600 MPa           | <= 87000 psi         |                                |
|                            | @# of Cycles 1.00e+7 | @# of Cycles 1.00e+7 |                                |
|                            | <= 780 MPa           | <= 113000 psi        |                                |
|                            | @# of Cycles 100000  | @# of Cycles 100000  |                                |

| Component Elements Properties | Metric     | English    | Comments   |
|-------------------------------|------------|------------|------------|
| Carbon, C                     | <= 0.10 %  | <= 0.10 %  |            |
| Iron, Fe                      | >= 97.65 % | >= 97.65 % | as balance |
| Manganese, Mn                 | <= 2.0 %   | <= 2.0 %   |            |
| Silicon, Si                   | <= 0.25 %  | <= 0.25 %  |            |

## **Contact Songhan Plastic Technology Co.,Ltd.**

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