SONGHAN Plastic Technology Co., Ltd.

## ArcelorMittal FB 540 Hot rolled ferrite-bainite steel

Category : Metal , Ferrous Metal , Alloy Steel

## Material Notes:

Description: This range of hot-rolled high strength steels has been developed to meet weight reduction requirements. It comprises four strength levels: FB 450, 540, 560 and 590. This family of steels extends the HSLA range of micro-alloyed steels to include products combining high tensile strength (UTS) with excellent formability and hole expansion (stretch flangeability) based on their ferrite-bainite microstructure. Applications: These steels are cold-drawn. The main applications are:structural parts (longitudinal beams, cross beams, car-body and ground liason parts), wheels, mechanical parts (ground liason parts, gear boxes...). ArcelorMittal has an extensive database relating to the forming and service properties of the entire range of ferrite-bainite steels. To integrate these steels at the design stage, a team of experts is available to perform specific studies based on modeling or laboratory tests. Information provided by ArcelorMittal

## Order this product through the following link:

http://www.lookpolymers.com/polymer\_ArcelorMittal-FB-540-Hot-rolled-ferrite-bainite-steel.php

| Mechanical Properties      | Metric               | English              | Comments                                          |
|----------------------------|----------------------|----------------------|---------------------------------------------------|
| Tensile Strength, Ultimate | 540 - 610 MPa        | 78300 - 88500 psi    |                                                   |
| Tensile Strength, Yield    | 400 - 485 MPa        | 58000 - 70300 psi    |                                                   |
| Elongation at Break        | >= 18 %              | >= 18 %              | L <sub>0</sub> =80 mm, th<3 mm                    |
|                            | >= 25 %              | >= 25 %              | L <sub>0</sub> =5.65v <sub>0</sub><br>mm, th<3 mm |
| Fatigue Strength           | <= 405 MPa           | <= 58700 psi         |                                                   |
|                            | @# of Cycles 2.00e+6 | @# of Cycles 2.00e+6 |                                                   |
|                            | <= 405 MPa           | <= 58700 psi         |                                                   |
|                            | @# of Cycles 1.00e+7 | @# of Cycles 1.00e+7 |                                                   |
|                            | <= 480 MPa           | <= 69600 psi         |                                                   |
|                            | @# of Cycles 100000  | @# of Cycles 100000  |                                                   |

| Component Elements Properties | Metric     | English    | Comments   |
|-------------------------------|------------|------------|------------|
| Carbon, C                     | <= 0.17 %  | <= 0.17 %  |            |
| Iron, Fe                      | >= 98.18 % | >= 98.18 % | as balance |
| Manganese, Mn                 | <= 1.5 %   | <= 1.5 %   |            |
| Silicon, Si                   | <= 0.15 %  | <= 0.15 %  |            |

## Contact Songhan Plastic Technology Co.,Ltd.

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