

## AK Steel 436L ULTRA FORM® Ferritic Stainless Steel

Category : Metal , Ferrous Metal , Stainless Steel

**Material Notes:**

AK Steel's 436L ULTRA FORM® is a ferritic grade of stainless steel that outperforms Type 409 in oxidation resistance and corrosion testing. The addition of molybdenum enhances pitting resistance when compared to other ferritic materials such as Type 409, Type 430, and Type 439. This material is resistant to stress corrosion cracking in the presence of chlorides and has excellent formability. This material is ideally suited to automotive exhaust applications where high temperatures or resistance to chlorides in a wet corrosive environment is needed.

**CORROSION RESISTANCE** AK Steel's 436L ULTRA FORM® exhibits superior corrosion resistance in synthetic muffler condensate testing when compared to Type 409, Type 430 and Type 439. **OXIDATION RESISTANCE** Type 436L ULTRA FORM® is more resistant to high temperature oxidation than Type 409. This is especially true for temperatures exceeding 1500F (816C). **WELDABILITY** This stabilized ferritic class of stainless steel is generally considered to be weldable by the common fusion and resistance techniques. To avoid brittle weldments, low weld heat input is recommended. When a weld filler is required, AWS E/ER such as 309 or 330 is often specified. Information provided by AK Steel

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_AK-Steel-436L-ULTRA-FORM-Ferritic-Stainless-Steel.php](http://www.lookpolymers.com/polymer_AK-Steel-436L-ULTRA-FORM-Ferritic-Stainless-Steel.php)

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell B	74 - 85	74 - 85	
Tensile Strength, Ultimate	441 - 517 MPa	64000 - 75000 psi	
Tensile Strength, Yield	276 - 345 MPa @Strain 0.200 %	40000 - 50000 psi @Strain 0.200 %	
Elongation at Break	28 - 35 %	28 - 35 %	in 2 inches

Component Elements Properties	Metric	English	Comments
Carbon, C	0.010 %	0.010 %	
Chromium, Cr	17.3 %	17.3 %	
Iron, Fe	80.49 %	80.49 %	As Remainder
Manganese, Mn	0.30 %	0.30 %	
Molybdenum, Mo	1.0 %	1.0 %	
Nickel, Ni	0.30 %	0.30 %	
Silicon, Si	0.30 %	0.30 %	
Titanium, Ti	0.30 %	0.30 %	

Descriptive Properties	Value	Comments
Formability, r	1.8	
n Value	0.20	

## Contact Songhan Plastic Technology Co.,Ltd.

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