



**WE'RE HEAVY INTO SUSTAINABILITY.
IN A VERY LIGHT WAY.**

Sure, it's not easy being green. But at Nucor, it's our passion. Because we seriously care about the health and protection of our environment. That's why we make steel more sustainably than any other manufacturer. And why we're so driven to provide the auto industry with Nucor's superior-performance, advanced high-strength steels. These leading-edge, lighter-weight, formable steels can reduce vehicle weight up to 35%, helping you improve fuel efficiency and meet CAFE standards. And, as several leading auto manufacturers know, you can trust us to deliver the quantities you need when you need them. Even in the event of tight deadlines, production increases and new specifications.

Contact us to learn more about how we can fulfill your lightweighting needs.

Nucor Automotive
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Southfield, MI 48075



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NUCOR AUTOMOTIVE

ADVANCED HIGH STRENGTH STEEL

DUALPHASE

Improved ductility at high strengths due to a soft ferrite microstructure with discrete, hard martensitic islands.

Applications:

Frame rails, reinforcements, structural components

Grade	Technical Characteristics	Available Coatings
DP980T/700Y	YS 700–900 MPa UTS 980–1200 MPa Elongation 8% min	GI, GA
NuPhase 800	YS 680–830 MPa UTS 800–980 MPa Elongation 10% min	GI
DP780T/500Y	YS 500–650 MPa UTS 780 MPa min Elongation 15%	GI, GA
HR MultiPhase 760	YS 660–820 MPa UTS 760–960 MPa Elongation 11% min	Uncoated, GI
DP590T/340Y HR & CR	YS 340–440 MPa UTS 590 MPa min Elongation 21%	GI, GA

PRESS HARDENED STEEL

Boron steel that is ductile when formed hot then quenched to attain a strong, hard martensitic microstructure.

Applications:

A-pillars, B-pillars, bumper beams, door impact beams, rocker panels

PHS 1500	YS 950–1250 MPa UTS 1300–1700 MPa Elongation 5% min	Uncoated, GI
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STRETCH FLANGE

Superior edge stretchability due to lower sulfur, carbon and finer uniform microstructure.

Applications:

Control arms, cradles, twist beams, truck frames, suspension components

HR 780SF	YS 685–835 MPa UTS 780 MPa min Elongation 14% min 60% Hole Expansion Ratio	Uncoated, GI, GA
HR 590SF	YS 450–600 MPa UTS 590 MPa min Elongation 18% min 95% Hole Expansion Ratio	Uncoated, GI, GA
HR 440SF	YS 275–390 MPa UTS 440 MPa min Elongation 30% min 150% Hole Expansion Ratio	Uncoated, GI, GA

Note: Nucor produces stretch flangeable versions of all conventional HSLA grades up to HR550LA.

HSLA

Finely dispersed carbides and nitrides in a fine-grained matrix of primarily solid solution strengthened ferrite.

Applications:

Control arms, frames, seating, brackets, reinforcements, hinges, clutch and torque converters

NuStrength 100 HR	YS 700 MPa min UTS 750 MPa min Elongation 11% min	Uncoated, GI, GA
Grade 80 HR, CR, Castrip	YS 550–690 MPa UTS 620 MPa min Elongation 16% min	Uncoated, GI, GA
Grade 70 HR, CR	YS 500–620 MPa UTS 560 MPa min Elongation 18% min	Uncoated, GI, GA
590R, HR, CR	YS 410–560 MPa UTS 590 MPa min Elongation 17% min	GI, GA
Grade 60 HR, CR	YS 420–590 MPa UTS 480 MPa min Elongation 20% min	Uncoated, GI, GA
Grade 50 HR, CR	YS 340–420 MPa UTS 410 MPa min Elongation 23% min	Uncoated, GI, GA
440W HR, CR	YS 275–390 MPa UTS 440 MPa min Elongation 30% min	Uncoated, GI, GA

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GI—Galvanized GA—Galvanneal

Note: Mechanical property ranges may vary based on coated/uncoated, gauge, test procedure, etc.

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