



# Sheet Products

Sheet Products Research Department is developing a wide variety of steel sheets for automobile and other applications. Cutting-edge technologies in microstructure control have been applied for development of high strength steels for lightweight panels, hot rolled high carbon steels for drive system parts and steel sheets for tubular products.

## Automotive Body and Panel Parts

Cold-rolled and hot-dip galvanized high strength steel sheets with excellent ductility and stretch-flange formability have been developed through innovative alloy design and microstructure control. Those products contribute to lightweight automotive parts of frame structure.

440MPa grade UNI HITEN™ for press-formed door panels is produced by controlling the fine hard phase morphology.



B-pillar lower side model part

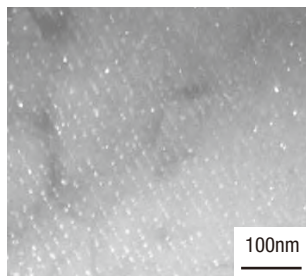
440MPa class UNI HITEN™ developed for door panel

## Automotive Suspension Parts

Excellent stretch-flange formability and elongation are required for manufacturing suspension parts. For this application, a ferritic steel with superior formability has been developed by controlling carbide precipitation into nanometer size.



Lower-arm of automotive suspension



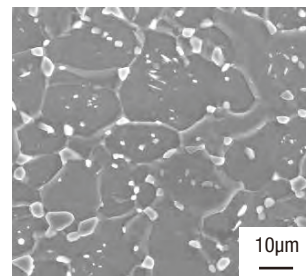
Nanometer-sized carbides in NANOHITEN™

## Automotive Transmission Parts

Surface hardness is an essential property for automotive transmission parts. Hot-rolled high carbon steel sheets, the SUPERHOT™ series, provide both ductility during press forming and high hardness after quenching.



Clutch drum



Microstructure of SUPERHOT™ - F

## Steel Pipes for Oil and Gas Transportation

Thick-walled linepipes are widely used for efficient transportation of oil and gas. JFE Steel has developed high strength steel sheets with excellent toughness, which is achieved by optimization of chemical composition and precise control of rolling processes.



X80-grade pipe with one-inch (25.4mm) thickness made of hot-rolled coil for oil and gas field