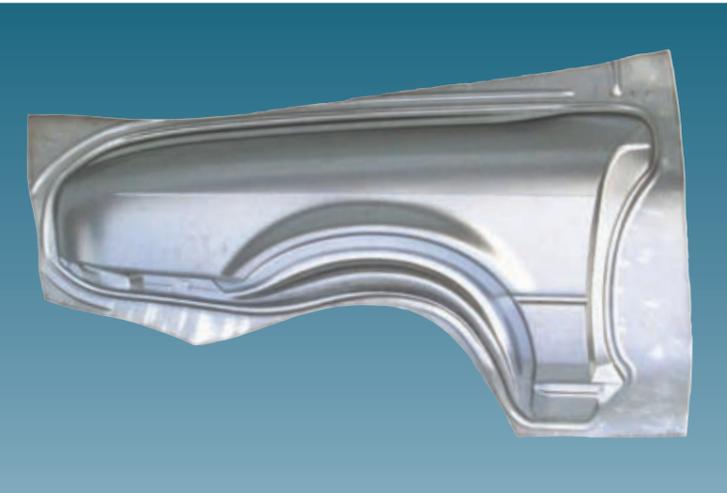
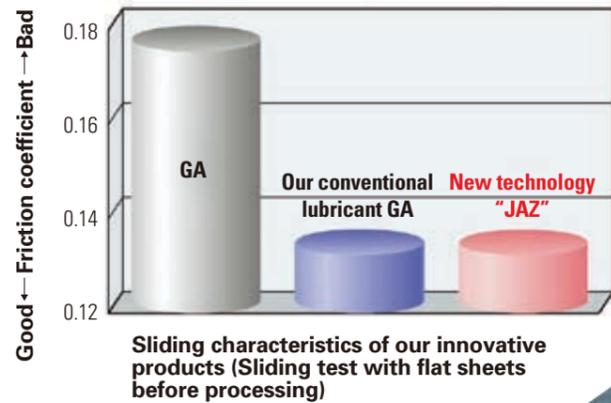


JFE's Technologies which Contribute to Global Environmental Protection



1,200 t actual press test (Fender model)



Protecting the Environment with Heavy Metal-Free Products

Highly-lubricated automotive galvanized (GA) steel sheets "JAZ"® (JFE Advanced Zinc)"

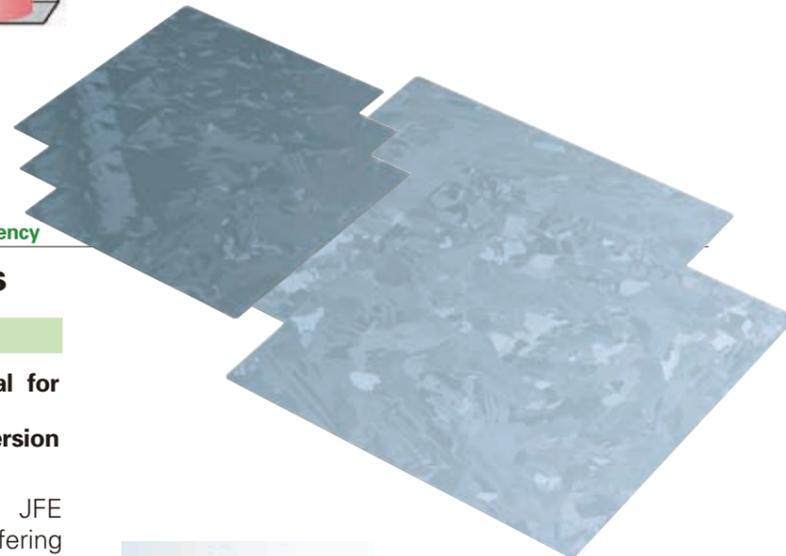
POINT

- Anti-corrosion steel sheets with excellent press formability
- Environmentally friendly and heavy metal free

A GA steel sheet* offers improved press formability through optimization of its nano-level surface structure. It is favorable for automobile side panels, fenders, doors, and wheel housings as well as other difficult-to-form outer panels and various inner panels.

* GA steel sheet is an abbreviation of "galvanized steel sheet."

URL <http://www.jfe-steel.co.jp/products/car/products/surface/jaz/index.html>



Polycrystalline silicon wafers for solar batteries

Achieved the World's Highest Level of Conversion Efficiency

Silicon Wafer for Solar Batteries

POINT

- A material used for solar batteries, critical for fighting against global warming
- Achieves the world's highest level of conversion efficiency

Using its advanced solidification technology, JFE Steel is manufacturing polycrystalline wafers offering world-class energy conversion efficiency (approx. 17%). The company is also applying highly sophisticated metallurgical technologies, such as electron beam refining and vacuum plasma melting, to manufacture the highest grade of solar grade (SOG) silicon in the world.

URL <http://www.jfe-steel.co.jp/release/2006/07/060726.html>



Silicon block



Prime Minister Aso examining the CHS air conditioning system installed in the Azalea underground shopping mall in Kawasaki.

Sufficient Energy-Saving and CO2 Emission Reductions

Clathrate Hydrate Slurry (CHS) Heat Storage Air Conditioning System

POINT

- Uses a fluid with cold storage capacity twice that of water to realize energy savings and reduced CO2 emissions
- Suited for use in underground shopping malls, commercial buildings, and a wide variety of other facilities
- Reduces CO2 emissions from air conditioning by 40% (Azalea underground shopping mall in Kawasaki)

The CHS air conditioning system uses a hydrate slurry that can store over twice the amount of cold energy as water used in conventional air conditioning systems. Having first been introduced in office buildings in the year ended March 31, 2006, this system is now being used in underground shopping malls, large commercial buildings, factories, and a wide variety of other facilities.

URL http://www.jfe-eng.co.jp/product/environment_energy/environment_energy1211.html

Helping to Build a Fuel Cell Society

Hydrogen Gas Tanks

POINT

- Core high-pressure gas tank technology for a wide variety of needs
- Currently testing a jointly developed fuel cell turret cart

JFE Steel developed the gas tank (13-l capacity, 190-mm diameter, 840-mm length, 35 MPa) and related systems for a turret cart powered by hydrogen fuel cells. Turret carts are used to transport goods in fresh food markets and within factories. With fuel cells increasingly being used in transportation, medical, and environmental applications, the company aims to contribute in a wide variety of ways based on its high-pressure gas tank technology.

URL <http://www.jfe-steel.co.jp/products/car/products/others/cylinder/index.html>
<http://www.jfecon.jp/product/g01.html>



Turret cart equipped with hydrogen gas tanks



Hydrogen gas tanks up close (under the cargo bed)

Helping to Protect Marine Ecosystems

Ship Ballast Water Treatment System

POINT

- Compact and easily installed in ships
- Controls ballast water to help protect marine ecosystems

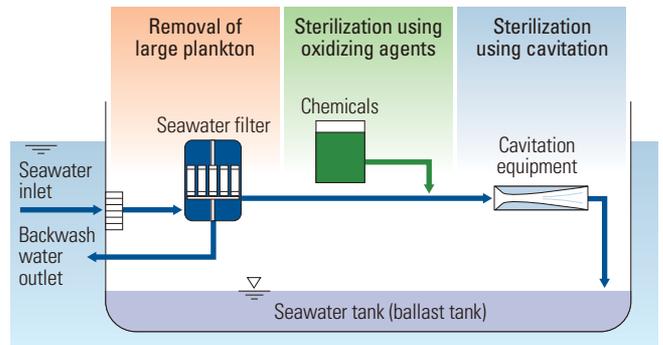
Ships with no cargo carry ballast water (seawater) to maintain their balance. When they enter a port and take on cargo, they release the ballast water they originally took in at a different port. The transfer of plankton and other organisms through such releases impacts marine ecosystems and has become an international problem. To address that problem, JFE Group has applied its water treatment, mechanical, and shipbuilding technologies to develop a compact, high-performance ballast water treatment system.

URL <http://www.jfe-eng.co.jp/product/environment/environment2271.html>



Ballast Water Processing System

Pumping ballast water into the ballast tanks (when unloading at ports)



Voyage Support System

“Sea-Navi®”

POINT

- Optimizes ship navigation to reduce fuel consumption
- Recommends optimum routes based on the weather
- Two-year test under actual operating conditions in progress

Optimizing shipping routes can effectively reduce the fuel consumption, as well as by improving vessel shapes and propulsion performance. Sea-Navi®, a voyage support system that takes its name from a car navigation system, is designed for this purpose. Before leaving port, the system provides the best routing plan considering fuel consumption, punctuality, and safety. While the vessel is underway, the system can adjust the plan depending on the conditions which are always changeable, as well as displaying the results of fatigue life evaluation of the hull structure and a recommended maintenance plan.

URL <http://www.u-zosen.co.jp/giken/review02.html>

