

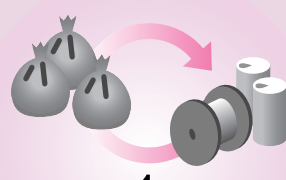
Environment-Friendly Products and Recycling Technology

Environment-Friendly Products

To protect the environment and contribute to the realization of a sustainable society, Furukawa Electric recognizes that "the 21st century is the century of the environment", and in response to the needs of society and our customers, is actively working to develop environment-friendly products and


technologies. Our aim is to develop a range of commercially viable "environment-harmonized" products--products that at every stage, from materials selection, manufacture and use to distribution and disposal, will be non-toxic and of low environmental impact.

Environment-Friendly Products




1
Toward Realization of
Recycle-Oriented Society

| Product | Use | Feature |
|--|--------------------|-------------------|
| ■ Recycled aluminum can stock | Cans | Recycling |
| ■ Recycled aluminum distribution wire | Electrical wire | Recycling |
| ■ Underground ducts (C.C. Box, Information Box) | Cable laying | Reuse of material |
| ■ Environment-conscious cable delivery drum (KANTAN KUN) | Cable delivery | Reuse |
| ■ Biodegradable foamed material (BIO ACE) | Packaging material | Biodegradability |
| ■ Recyclable pallet | Conveyance | Reuse of material |
| ■ Weed barrier sheet | Sheet | Reuse of material |




2
Toward Reduction of
Environmental Impact

| Product | Use | Feature |
|--|--|------------------------|
| ■ ECO wires (ECO-ACE, ECO-BEAMEX) | Home appliances, Power distribution, Communication | Halogen- and lead-free |
| ■ Lead-free electrical wire | Automobile | Lead-free |
| ■ Lead-free plated parts for electronic equipment | Electronic parts | Lead-free |
| ■ ECO bus duct | Power distribution | Halogen-free |
| ■ Indoor conduit of flame-retardant resin (ECO-PLAFLEKY) | Indoor electrical wire laying | Halogen- and lead-free |



3
Toward Prevention of
Ozone Layer Depletion

| Product | Use | Feature |
|---|-----------------------------|--|
| ■ CFC-substitute compatible magnet wire (HPWR II) | Home appliances, automobile | Compatibility with CFC substitutes |
| ■ Nitrogen-atmosphere reflow oven (SALAMANDER) | Electronic equipment | Elimination of CFCs |
| ■ Aluminum sheet coated with high-performance resin (FUSCOAT) | Electronic equipment | High lubrication, elimination of cleansing |
| ■ Copper tube compatible with CFC substitutes (FMGT / Furukawa SuperClean Tube) | Home appliances | Compatibility with CFC substitutes |



4
Toward Prevention of
Global Warming

| Product | Use | Feature |
|--|----------------------|----------------------------------|
| ■ High-reflectivity foamed sheet (MC-PET) | Lighting | Energy conservation |
| ■ High-performance heat-exchanging material | Automobile | Lightweight, energy conservation |
| ■ Application products of micro heat-pipe | Electronic equipment | Energy conservation |
| ■ Solar photovoltaic system | Electric power | Clean energy |
| ■ Deep sea solidification of CO ₂ | Electric power plant | Reduction of CO ₂ |

[Product Development in Future]

In future, new product development must take account of the environmental impact over the whole life of the product, and life cycle assessment (LCA) is a technique that is gaining wide acceptance. Furukawa Electric has already begun conducting

life cycle assessments in relation to the development of insulated cables and aluminum heat exchangers. The results will be applied for material selection and manufacturing.

1 Toward Realization of Recycle-Oriented Society

We are moving to develop products that reuse waste materials, products that feature unification of materials to facilitate recycling and products that are biodegradable and thus do not leave residual waste products.

Recycled Aluminum Can Stock

The use of can stock made from used beverage cans contributes to promoting aluminum recycling.



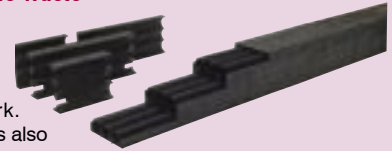
Environment-Conscious Cable Delivery Drum "KANTAN KUN"

This is an environment-conscious cable delivery drum using steel to make resource recycling easy. It can be easily disassembled after use, and thus is reusable through assembly and disassembly.



Underground Cable Duct Made of Cable Waste "KOHTA KUN"

This underground cable duct with multiple bores makes effective use of plastic waste. The product has acquired the ECO mark. "KOICHI KUN" duct for information box use is also highly reputed.



Biodegradable Resin Foam "BIO ACE"

When these foamed sheets used in packaging and wrapping are disposed of in landfills, they are completely broken down by the action of microorganisms in approximately one year. We have developed an environment-friendly foaming process based on our proprietary technology.



Vegetation Net for Civil Engineering Work "F-MAC SHEET"

This is a vegetation net for civil engineering work using ECO material. It comprises "TERRAMAC"™ of YUNITIKA LTD. and a sheet that contains seed and fertilizer. TERRAMAC is a poly-lactic-acid fiber made from vegetable resources of corn and the like through a chemical synthesis process based on lactic fermentation.



2 Toward Reduction of Environmental Impact

We are developing products that do not create environmental problems when they are used, but further, they do not emit toxic by-products when they are eventually disposed of by incineration or in landfills, thus reducing environmental impact.

ECO Electrical Wire

These wires and cables use no halogens such as PVC, permitting ease of disposal by incineration. ECO-ACE general cables for indoor use, ECO-BEAMEX wires for electrical appliances and power cords together with highly flame-retardant optical cables are already in practical use.



ECO-ACE



ECO-BEAMEX

Lead-Free Electrical Wire

No lead compounds are used as stabilizer for the insulation resin, eliminating concern about lead pollution when disposed of in landfills. They are already in use for automotive wire.



Lead-Free Plating for Electronic Components

Lead-free plating for the leads of ICs, capacitors, connectors, printed circuit boards, etc. has been achieved by using a tin-bismuth alloy instead of the tin-lead material used previously, so that elimination of lead from customers' mounting process can be much improved.



Environment-Friendly Indoor Cable-Protection Conduit Made of Flame-Retardant Resin "ECO-PLAFLEKY"

Since these cable conduits contain no halogen-based flame-retarding agents, they do not emit dioxins nor halogenous gases when combusted, permitting easy recycling.



3 Toward Prevention of Ozone Layer Depletion

We are developing devices and processes that do not use CFCs, together with products adapted to CFC substitutes.

CFC-Substitute Compatible Magnet Wire "HPWR II"

These heat- and refrigerant-resistant windings are now in use in the compressor motors of air-conditioning and refrigerating systems using CFC-substitute refrigerants (HFC-407C, R410A, R134a).



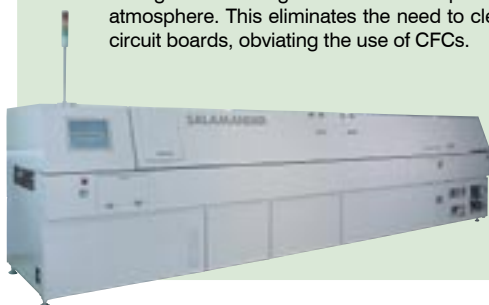
Copper Tube for Use with CFC-Substitutes "FMGT", "Furukawa SuperClean Tube"

These are heat exchanger copper tubes for use with CFC-substitute refrigerants to reduce the ozone layer depletion. They have reduced oil residuals in the tube's inner surface and are internally multi-grooved to improve heat-exchanging performance.



Nitrogen-Atmosphere Reflow Oven "SALAMANDER"

This reflow oven carries out the reflow soldering process during the mounting of electronic components in a nitrogen atmosphere. This eliminates the need to cleanse completed circuit boards, obviating the use of CFCs.



Functional Resin-Coated Aluminum Sheet "FUSCOAT"

These functional resin coated aluminum sheets provide enhanced formability, corrosion resistance, scuff- and fingerprint-resistance, resistance to chemicals, electrical conductivity, ease of printing, and anti-bacterial and anti-mold properties. They are also self-lubricating, so that disposal of the lubricants and cleansers formerly used in the stamping process is eliminated.



4 Toward Prevention of Global Warming

We are developing products that contribute to global warming prevention and energy conservation, such as products with improved efficiency and lightweight as well as clean energy systems.

Solar Photovoltaic System

This clean distributed power generating system uses solar batteries to convert the sun's rays directly into electricity.



Micro Heat-Pipe

Furukawa Electric's micro heat-pipe provide a solution to the problems of heat-dissipation and cooling of electronic equipment, making possible greater availability of computing power along with energy conservations.



High-Reflectivity Foamed Sheet "MC-PET"

Furukawa Electric is the first in the world to succeed in the commercial-scale production and marketing of white sheets made of extra-fine foamed polyethylene terephthalate (PET). Bubble diameter is so small that optical performance is outstanding, with a total reflectivity of 99 % or more.



High-Performance Heat-Exchangers Material

We have developed aluminum radiator and air-conditioner materials for automotive applications that are lighter in weight, promoting better fuel economy and reducing CO₂ emissions.



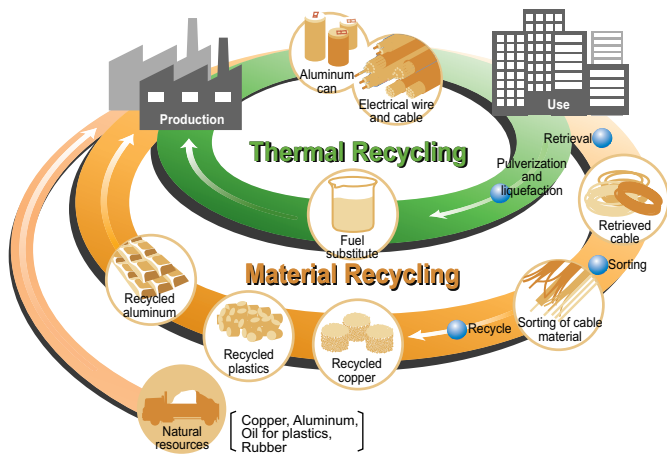
Recycling Technology

Recycling System of Electric Wire and Cable

Recycling systems of used power cables and communication cables from customers have been established, thus enabling reuse of conductors mainly.

Recycled cables are disassembled and separated material to material, and subsequently reused. Copper and aluminum from conductors are 100 % reused, while covering materials are reused as recycled plastics and fuel achieving a considerable degree of reusability.

Recycling Technology Aimed at Recycling-Oriented Society



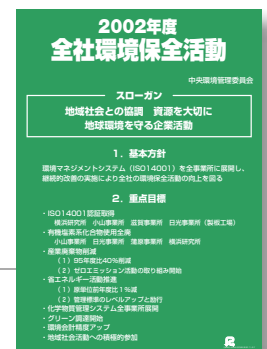
National Project for the Development of Recycling Technology

As a member of the electrical wire and cable industry as well as the light metal rolled products industry, Furukawa Electric participates in the national projects, thereby promoting the development of recycling technologies in terms of electric wire sheathing material and aluminum, respectively. With respect to the recycling technology of sheathing material for electric wire, thermal recycling through the development of liquefaction and pulverization was studied, under the aegis of the Ministry of International Trade and Industry (currently the Ministry of Economy, Trade and Industry), jointly by the Japan Electric Cable Technology Center (JECTEC) and cable manufacturers. Material recycling technology for cross-linked polyethylene was also developed under the aegis of the New Energy and Industrial Technology Development Organization (NEDO).

With respect to aluminum, funding from NEDO made it possible for the Japan Research and Development Center for Metals (JRMC) and seven manufacturers of aluminum rolled products to embark in 1993 on a 10-year project to develop technology to promote aluminum recycling.

Furukawa Electric manufactures a broad range of products and related technologies, from electrical wire and cable to electronic parts and plastic and metallic materials, and we will mobilize all of our expertise to advance solutions to problems of the environment.

Environmental Communicative Activities



Environmental Education

Active commitment of all the employees is essential for environment preservation activities of a corporate to be successful. We carry out, therefore, a systematic education program as shown below that is designed to be suitable for the role of each employee. The employees are also encouraged to actively take part in the community-based environment preservation activities so that they acquire a broad range of information on environment preservation.

| Content of education | Intended employee | Frequency |
|--|---|--------------------|
| Education based on ISO14001 | | |
| General education | All employees | Once a year |
| Special education and training | Employee engaged in special work | At needs |
| New employee education | New employee | Once a year |
| Core employee education | Core employee | Once a year |
| Qualification course for internal supervisor | Candidate for internal supervisor | Three times a year |
| Qualification course for internal supervisor at affiliated company | Candidate for internal supervisor at affiliated company | Once a year |
| Level-up course for internal supervisor | Internal supervisor | Once a year |
| EMS regular seminar | EMS promoter | Once a year |

Enlightenment and Publicity Activities

Enlightenment Activities

To raise the environment consciousness of the employees, we have put up an environmental campaign poster at all the Works, Laboratories and Branch Offices in succession to the last year. The poster contains a slogan about environment preservation activities, Basic Environmental Policy and major activity targets for fiscal 2002.

In June, which is designated as the month of environment preservation, the chairman of the Central Committee for Environment Control delivered a message to all the Works about the significance of the month of environment preservation, offering encouragement of energetic activity. Each Works, in response to this message, carried out diversified activities such as distribution of a leaflet informing the environment preservation month, installation of notice boards, call for a catchphrase concerning the environment, implementation of the 5S activity in and around the Works' premises together with a night patrol to confirm environmental influences on the surrounding areas.

Publicity Activities

●Furukawa Electric's Web-Site

Furukawa Electric presents the company's initiatives about the environment in the form of "Environment Preservation Initiative" (in Japanese) and "Environmental Actions" (in English), in addition to this "Environment Report 2002" and other environmental reports in PDF.

●Exhibitions

Major exhibitions for fiscal 2001 we participated in are as follows:

| Exhibition | Environment-related exhibits |
|---|---|
| INTERNEPCON JAPAN | Nitrogen-atmosphere reflow oven (SALAMANDER) |
| Automotive Engineering Exposition 2001 | Environment-conscious products, Weight reduction technology of wire harness for electric vehicles |
| Sign and Display Show | High-reflectivity foamed sheet (MC-PET) |
| Electrical Construction Equipment and Material Fair | Information Box, C. C. Box, Weed barrier sheet, Halogen-free electrical wire (ECO-ACE, ECO-BEAMEX, EM-EEF), Halogen-free insulating tape (Non-halo F-CO), Splicing material for ECO material cables |
| SEMICON Japan 2001 | UV-curable adhesive tape for semiconductor manufacturing (Halogen-free UV tape) |
| Motor Show | Halogen-free electrical wire (ECO-ACE), State of charge sensor (for engine idling suppression), Aluminum electrical wire (for weight reduction and fuel efficiency improvement) |



Electrical Construction Equipment and Material Fair



SEMICON Japan 2001

Alignment with Local Communities

In order to promote coexistence with local communities, we actively participate in such festivities as ECO fair and industry fair that are held under the sponsorship of local governments, and we offer them occasions of free access to our playgrounds.

Furthermore, considering that coexistence with the local communities is an important issue for enterprise, we include a theme of "active participation in the local communities' activities" as one of the major targets of company-wide environment preservation activities for fiscal 2002, thereby promoting such activities.



Free access to the playgrounds is offered (Hiratsuka Works)



Planter using recycled cable drum is exhibited at the Yawata coastal area fair (Chiba Works)



Scavenging the street in peripheral areas (Yokohama R&D Laboratories)