

Environmental Targets for Fiscal 2016 and Results Achieved

R&D	Initiatives	Promotion of products containing no substances of concern (SOCs)	Medium- and long-term Targets	Complete the conversion to lead-free sintered material by 2020 (for local and bullet trains)		
	Targets for Fiscal 2016		Results Achieved in Fiscal 2016		Plans for Fiscal 2017 and After	
	<ul style="list-style-type: none">• Further promote a changeover to the lead-free sintered material for applicable categories of rolling stock• Develop lead-free sintered materials that suit for other categories of rolling stock		<ul style="list-style-type: none">• Lead-free rate is 61% as of fiscal 2016 (55% the previous fiscal year)• Completed the development of a lead-free sintered material (not applicable to certain categories of rolling stock)• Promoted a changeover from conventional sintered materials to the lead-free sintered material for applicable categories of rolling stock		<ul style="list-style-type: none">• Further promote a changeover to the lead-free sintered material for applicable categories of rolling stock• Develop lead-free sintered materials that suit for other categories of rolling stock	

Production	Initiatives	Reduction of total CO ₂ emissions at production plants in Japan	Medium- and long-term Targets	Reduction of CO ₂ emissions intensity more than 1% on an annual average by 2020		
		Continue and improve ISO14001-related activities		Continue to enhance environmental activities		
		Promotion of zero-emission activities at production sites: eliminate direct landfill disposal		Maintain zero emissions		
	Targets for Fiscal 2016		Results Achieved in Fiscal 2016		Plans for Fiscal 2017 and After	
	• Reduction of CO ₂ emissions intensity more than 1%		• 20% reduction in CO2 emissions intensity in Japan by operating income in fiscal 2016 on a year on year achieved by introduction of next-generation friction materials manufacturing equipment and application of thermal barrier coatings to factory roofs		• Collect information globally on CO ₂ reducing measures and energy-saving technologies	
	• Firmly root ISO14001 in operations and steadily renew certifications		• Renewed the ISO14001 certifications at seven sites, including Sanyo Manufacturing		• Continue to firmly root ISO14001 in operations and steadily renew certifications	
• Maintain zero emissions; generate no direct landfill disposal		• Maintained zero emissions; generate no direct landfill disposal		• Continue to maintain zero emissions; generate no direct landfill disposal		

Environmental Education	Initiatives	Environmental training center	Medium- and long-term Targets	Nurture human resources to disseminate environmental preservation methods to locations nationwide through training programs implemented at Environmental training center		
	Targets for Fiscal 2016		Results Achieved in Fiscal 2016		Plans for Fiscal 2017 and After	
	• Get feedback from the trainees and reflect it in the program		• Held lectures on chemical substance management by external instructors • Started introducing the online education program implemented at ABCT (United States) to Japan		• Get feedback from the trainees and reflect it in the program	

Refer to the following for performance data for each principal company.
Akebono Environmental Data by Principal Company in Japan(PDF download 1,065 KB, 5 pages)

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Logistics	Initiatives	Response to revised Energy Conservation Law (energy saving obligation of cargo owners)	Medium- and long-term Targets	Reduce unit energy consumption by 1% (five-year average)
	Targets for Fiscal 2016		Results Achieved in Fiscal 2016	
	Plans for Fiscal 2017 and After			
	<ul style="list-style-type: none"> Improve transport efficiency and increase energy usage efficiency 		<ul style="list-style-type: none"> Reduced CO₂ emissions per transport weight and distance from logistics by 0.6% on a year-on-year basis Implemented eco-friendly driving activities and seminars Introduced the real-time management system of truck operations 	
			<ul style="list-style-type: none"> Continue efforts to reduce unit energy consumption by 1% or more in five-year average 	

Purchasing	Initiatives	Promotion of green purchasing	Medium- and long-term Targets	Establish structure that ensures purchasing activities in line with the Green Purchasing Guidelines
	Targets for Fiscal 2016		Results Achieved in Fiscal 2016	
	Plans for Fiscal 2017 and After			
	<ul style="list-style-type: none"> Revise supplier quality management (SQM) standard manuals 		<ul style="list-style-type: none"> Conducted research in tandem with suppliers into the alternate materials that use fewer environmental impact substances and require lower energy input with the aim of making concrete proposals for new material development Carried out the following revisions to SQM standard manuals to ensure the greater understanding of suppliers with regard to the Company's approach to environmental impact substance reduction (Enhanced GADSL^{*1} explanations and provided clearer descriptions of procedures for the handling of environmental impact substances) 	
			<ul style="list-style-type: none"> Encourage suppliers to upgrade their environmental management systems Continue supply chain survey using IMDS^{*2} 	

Production Engineering	Initiatives	Promotion of resource-saving design	Medium- and long-term Targets	Develop manufacturing facilities that are reusable, achieving a greater yield ratio, energy saving, and eco-friendly operations with the aim of realizing environmentally friendly manufacturing
	Targets for Fiscal 2016		Results Achieved in Fiscal 2016	
	Plans for Fiscal 2017 and After			
	<ul style="list-style-type: none"> Further enhance energy-saving and resource-saving technologies 		<ul style="list-style-type: none"> Changed factory dust collection method from large-scale centralized collector to small, individual collectors that can operate in to match the operational status of each factory line 	
			<ul style="list-style-type: none"> Further enhance energy-saving and resource-saving technologies 	

*1 Global Automotive Declarable Substance List

*2 International Material Data System used by automobile industry to report data on materials