

Value Creation by Businesses

The Daiken Group delivers value to society by operating businesses that utilize our unique industrial materials and technologies to respond to a variety of social issues and needs.

01 Promotion of the use of domestic timber



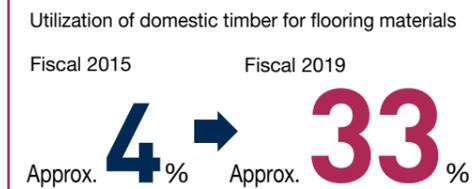
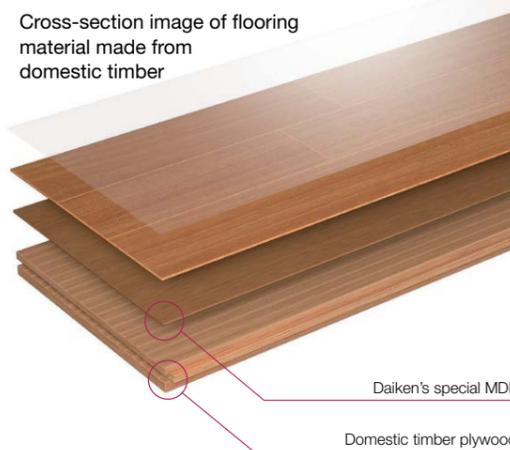
Social issues and needs

Japan is one of the world's most forested countries with about two-thirds of the land covered in forest. Therefore, domestic wood should be more actively used in order to foster healthy forests that fulfill various needs such as absorbing CO₂ and prevention of landslide disasters. The Japanese government is aiming to increase wood self-sufficiency to 50% by 2025.

Daiken's strengths and value creation 1

Promotion of the use of domestic timber with special MDF that offers excellent water resistance

The Daiken Group took advantage of the expertise cultivated as the leading flooring manufacturer and Daiken's unique MDF technology that offers excellent water resistance and surface smoothness and developed flooring base materials combined with domestic wood. The group had made many improvements and increased the use of domestic timber for flooring materials, which was approx. 4% in fiscal 2015, to approx. 33% in fiscal 2019. The group will continuously proceed with product development that will draw out the appeal of domestic timber and further promote the use of domestic timbers.



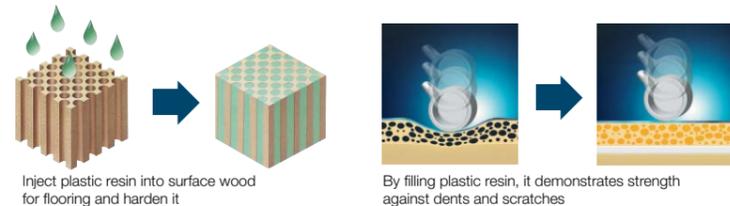
Daiken's strengths and value creation 2

Expanding the scenes to utilize domestic timbers with the wood hardening technology

With Daiken's unique WPC* technology to harden wooden tissues by injecting plastic resin into and filling the tissues, it has become possible to offer flooring with excellent surface strength that uses domestic natural wood for surface decorative materials. Because many domestic tree species are soft materials, low durability in using them as flooring was an issue, but by taking advantage of this technology, we will expand the use of domestic timber while meeting the needs of using local materials.

*WPC = An abbreviation of Wood Plastics Combination

Mechanism of the WPC technology



Case of adopting WPC flooring

02 Recycling of wood resources

03 Reduction of CO₂ emissions



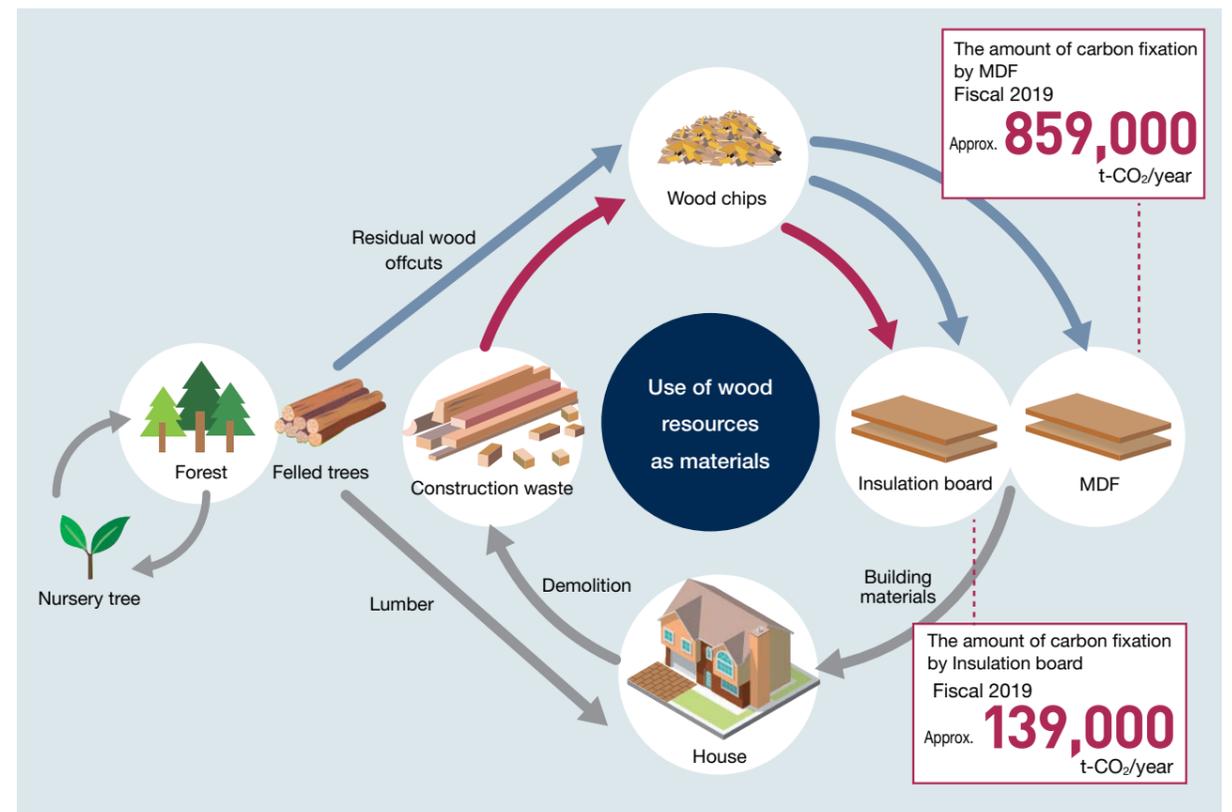
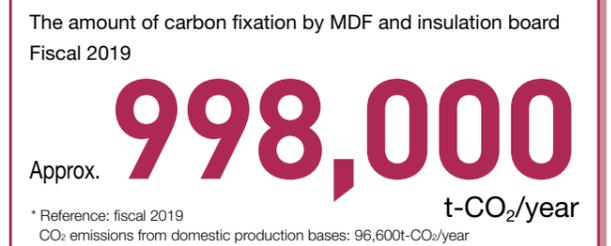
Social issues and needs

Considering the adoption of two closely linked SDGs and the Paris Climate Agreement, the crucial challenge for the world is to create a recycling-oriented society that effectively uses limited resources and promote measures against the climate change associated with global warming.

Daiken's strengths and value creation

Prolongation of the carbon fixation period by using wood resources for materials

The Daiken Group has been manufacturing materials that effectively use wood resources, such as MDF using cutoff materials from sawmills and insulation boards reusing construction waste that used to be discarded or used as fuel. Trees have a function to absorb CO₂ in the atmosphere in the growth process and keep storing it by fixing it as carbon. Using wood as materials as long as possible instead of burning will not only reduce waste but also keep storing carbon in wood, and as a result, it will lead to reducing CO₂ emissions to the atmosphere. Our group focuses on this function, continues to use wood resources in a wide variety of scenes as materials with zero waste, and contributes to the formation of a recycling-oriented society and the prevention of global warming.



04 Creating a safe, secure, healthy, and comfortable space



Social issues and needs

Japanese society is more rapidly aging than other developed countries and becoming a super-aging society with one in four people aged 65 or over. It is expected that the elderly population will reach about 40% in 2060. There is also concern about social problems with old people providing care for old people. So, the living environment of the future must be safe, secure, healthy, and comfortable.

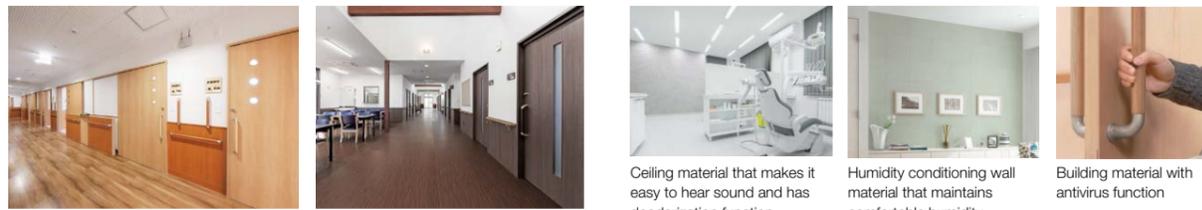
Daiken's strengths and value creation 1

Creating a safe space to live together with the elderly

Daiken is committed to manufacturing from the perspective of all users, including elderly people, their families, and caregivers. We developed more products based on our ideas and technologies proven through our work and in accordance with universal designs. We have comprehensive product lines for residential homes that are considerate of nursing needs and home care. Daiken pursues the creation of excellent and pleasant spaces using products that are safe, secure, and functional for peoples' lives.

Product variations

Approx. **30,000** items



Case of adopting products for residential homes that are considerate of nursing needs and home care

Ceiling material that makes it easy to hear sound and has deodorization function

Humidity conditioning wall material that maintains comfortable humidity

Building material with antivirus function

Social issues and needs

With the increase in the female employment rate in recent years, entrance applications to childcare facilities have increased, and the number of children on the waiting list in fiscal 2019 was 47,198 (as of October 1, 2018), which was still at a high level. While the cases of leaving children aged 0 to 3 in childcare facilities have been increasing more than ever, a design that is more considerate of safety and the environmental aspect is required for these facilities. Lack of human resources engaged in childcare is also one of the major causes of the problem of children on the waiting list, and it is imperative to reduce nursery teachers' burden and create a pleasant working environment.

Daiken's strengths and value creation 2

Creating spaces where children can spend the time safely

We thoroughly examined the performance required for the area around a door in a childcare facility where the risk of injury is particularly high and developed the door dedicated to kindergartens and childcare facilities, while taking advantage of the expertise in door manufacturing cultivated from past houses and elderly facilities. We will support a wide variety of problem solutions required for childcare facilities, such as safety, comfort, and a reduction in the burden of nursery teachers, using Daiken's unique technologies and diverse products.



Doors that consider safety by assuming that children use them

Tatami mats made from machine-made Washi paper that are stain-resistant and highly water-resistant, durable, and resistant to fungus

Meshed cushion on the back of flooring disperses the impact and reduces the risk of getting injured

Decorative flooring dedicated to washroom that is not slippery when getting wet

The door dedicated to kindergartens and childcare facilities won the Kids' Design Award* (Fiscal 2018)



* Design category that will contribute to the safety and security of children

05 Effective use of unused resources

06 Promotion of anti-seismic performance



Social issues and needs

Japan has been devastated by earthquakes many times, including the Great Hanshin-Awaji Earthquake and the Great East Japan Earthquake. Large earthquakes, such as the Tokyo Metropolitan earthquake and the Nankai trough earthquake, are predicted with high probability to occur in the near future, and the Japanese government has set a target for seismic resistance ratios and promotes the upgrading of houses and buildings.

Daiken's strengths and value creation

Promotion of anti-seismic performance of wooden houses using non-combustible materials that offer excellent durability

Daiken developed Dai-Lite, the world's first new industrial material using an unused resource, Shirasu (volcanic ash) as the major raw material. It has all of the performance required for an inorganic bearing surface, such as lightweight, high strength, high durability, fireproof, and workability, that could not be realized with conventional inorganic materials. Daiken has contributed to a recycling-oriented society by finding value in a resource that was untapped and by expanding applications as the product and by becoming popular as the leading brand for an inorganic bearing surface for houses, and it has contributed to improving aseismic performance of Japanese wooden houses. By promoting the lineup of the anti-seismic products for existing houses, it promotes further upgrading of the anti-seismic performance of wooden housing.



Dai-Lite



Anti-seismic wall



Shirasu, an unused resource available in natural world

Number of households installing Dai-Lite (cumulative)
Approx. **880,000**
*Reference: Number of wooden independent house starts
Approx. 390,000 (fiscal 2019)

07 Saving construction time and work



Social issues and needs

Because of the special demand for the restoration projects and Tokyo Olympics and Paralympics, in addition to decreasing productive-age population ratio associated with the low birthrate and longevity, a shortage of workers has become an aggravated problem in the construction industry. While the Building Standards Act revised after the Great East Japan Earthquake requires higher aseismic performance of the ceilings of large public buildings, there was an issue that it requires much time and labor in making existing ceilings anti-seismic.

Daiken's strengths and value creation

Contributing to the anti-seismic ceiling by developing the labor-saving construction technique

To respond to the growing needs of making the ceiling anti-seismic after the Great East Japan Earthquake, Daiken developed a unique new construction technique, which makes it possible to make the ceiling anti-seismic with the saving construction time and work. With this construction technique, we could reduce construction time and labor by approx. 25% compared to making the conventional ceiling anti-seismic. We will aim to further realize the saving construction time and work for not only ceilings but also building materials for renovation from the perspective of a new construction technique.



Our own anti-seismic ceiling construction technique



Flooring for renovation that can be easily constructed in a short construction period



MISEL Wall cabinet corresponding to the on-board construction technique that can omit substrate work and shorten the construction period

Rate of reduction of construction time and labor compared to making the conventional ceiling anti-seismic:
Approx. **25** %