

April 15, 2017

ITEM2017 Presentation



【Product Introduce】

Lead Free Board Xp



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Introduction

『**Lead-Free Board Xp**』 is a **UNLEADED**, Eco-Friendly X-ray shielding material.



Lead Free Board Xp



Specification

Lead Free Board Xp



Product	XP-075	XP-100
Benchmark	Lead Equivalency 0.75mm	Lead Equivalency 1.00mm
Thick	12.5mm	15.0mm
Weight	About 30kg	About 40kg
Size	910mm × 1,820mm	
Shape	Square	
Non-combustible Material #	Incombustible Material NM-3472	
Insulator Structure#	FP060NP-0349 (with insulator) FP060NP-0351 (without insulator)	

※Edge Shapes

First layer



Square Edge

Second layer



Bevel Edge

※Tested under 100kV machine



Characteristics①

Lead-Free Board Xp uses **Barium** (BaSO_4) as a shielding material, therefore, it is harmless for human body.

Usage of Barium

- Medicals (**X-ray contrast medium**)
- Ink, Paint, Ceramics, Resin, etc...
- Cosmetics (Foundation, Rouge, etc...)





Characteristics②

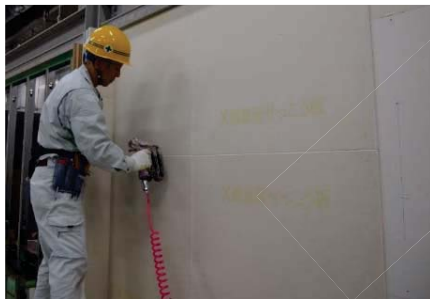
◆ Faster Construction

■ Weight per Board

Lead-Free Board Xp	Leaded Board
30kg (t=12.5mm)	45kg (PB12.5+lead1.5)
40kg (t=15.0mm)	57kg (PB12.5+lead2.0)



Light, Fast



※ Our construction technicians constructs **TWICE FASTER.**

= Shorter Constructing Period





Characteristics③

- ◆ **Does not require lead tapes**
 - Just put corners or joints together



Joint

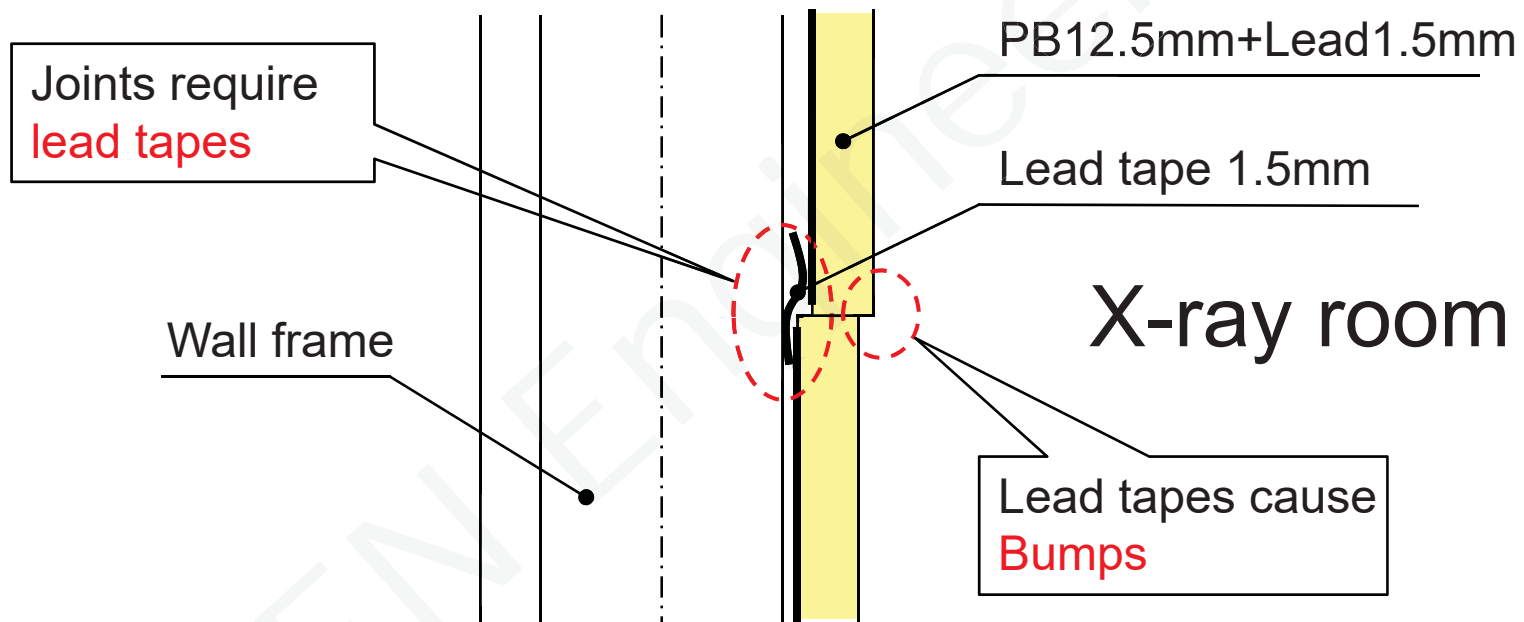


Corner



Installation

Leaded Board Case

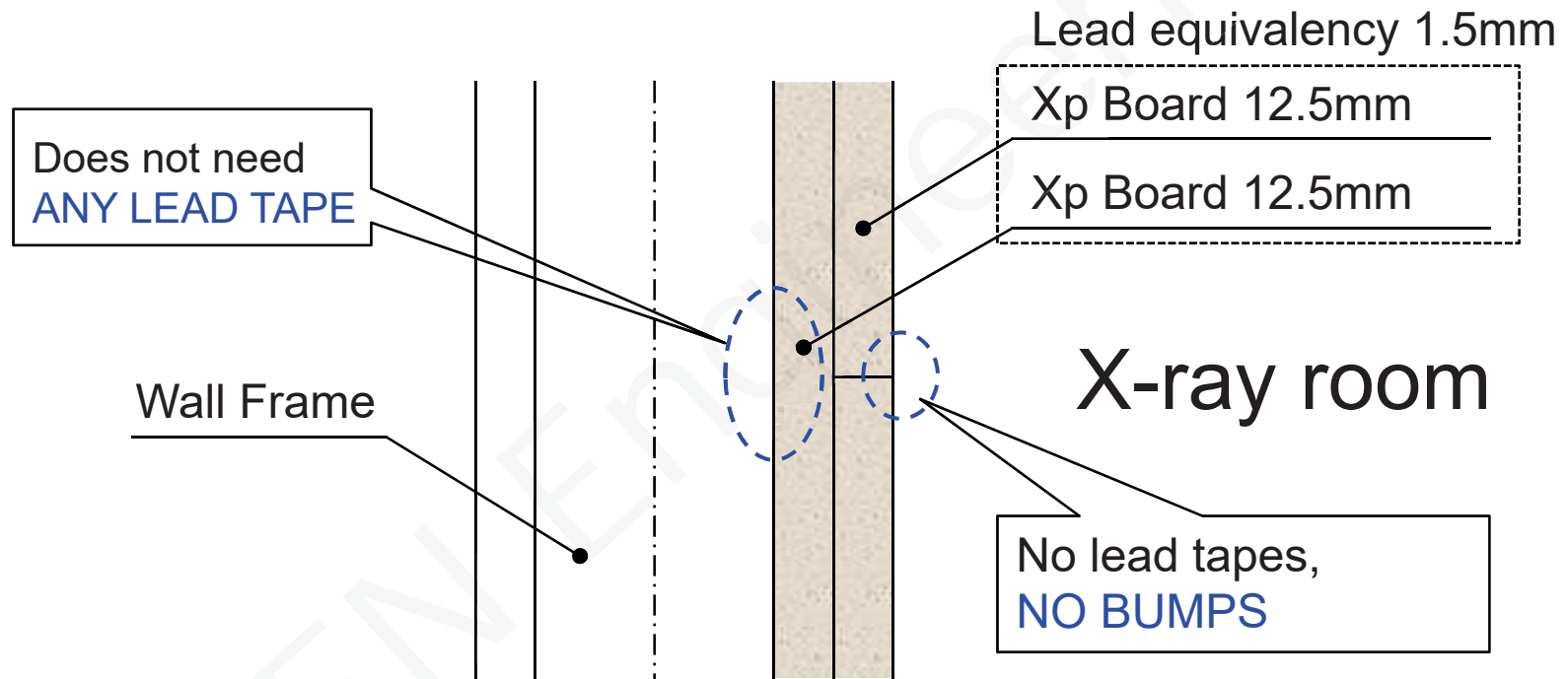


Joints of boards require lead tapes behind them, and it causes uneven surfaces.



Installation

Lead Free Board Xp Case

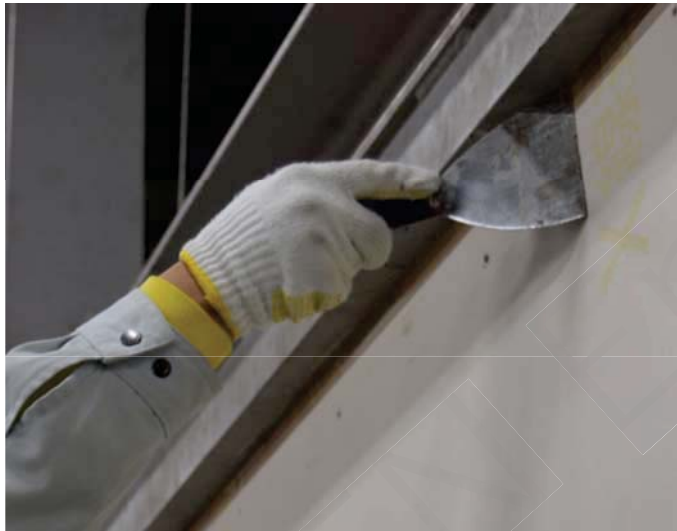


Lead-Free Board Xp does NOT require lead tapes, so it makes its surface very even.



Lead-Free Putty

- If there are gaps between boards, fill the Lead-Free Filling.





Finishing

◆ **Lead-Free Board Xp allows wallpaper or paint with sealer done on its surface.**





Characteristics④

◇ Certifications by Minister

- Certificated as **NON-COMBUSTIBLE MATERIAL** by Minister of Land, Infrastructure, Transport and Tourism

Certification #: **NM-3472**

※Leaded board is not an incombustible material

- Certificated as **1 hr of FIRE RESISTANCE NON-LOADBEARING PARTITION** by Minister of Land, Infrastructure, Transport and Tourism

Certification #: **FP060NP-0349**(without insulator)

Certification #: **FP060NP-0351**(with insulator)



Characteristics⑤

◆ Helps reducing carbon dioxide emission

□ Leaded board(1.5mmPb) exhausts **72.0kg** of CO² per board.

Roll extension of a lead block exhausts 72.0kg of CO² per board, and realistically lead boards exhaust the amount of CO² shown in the table below.

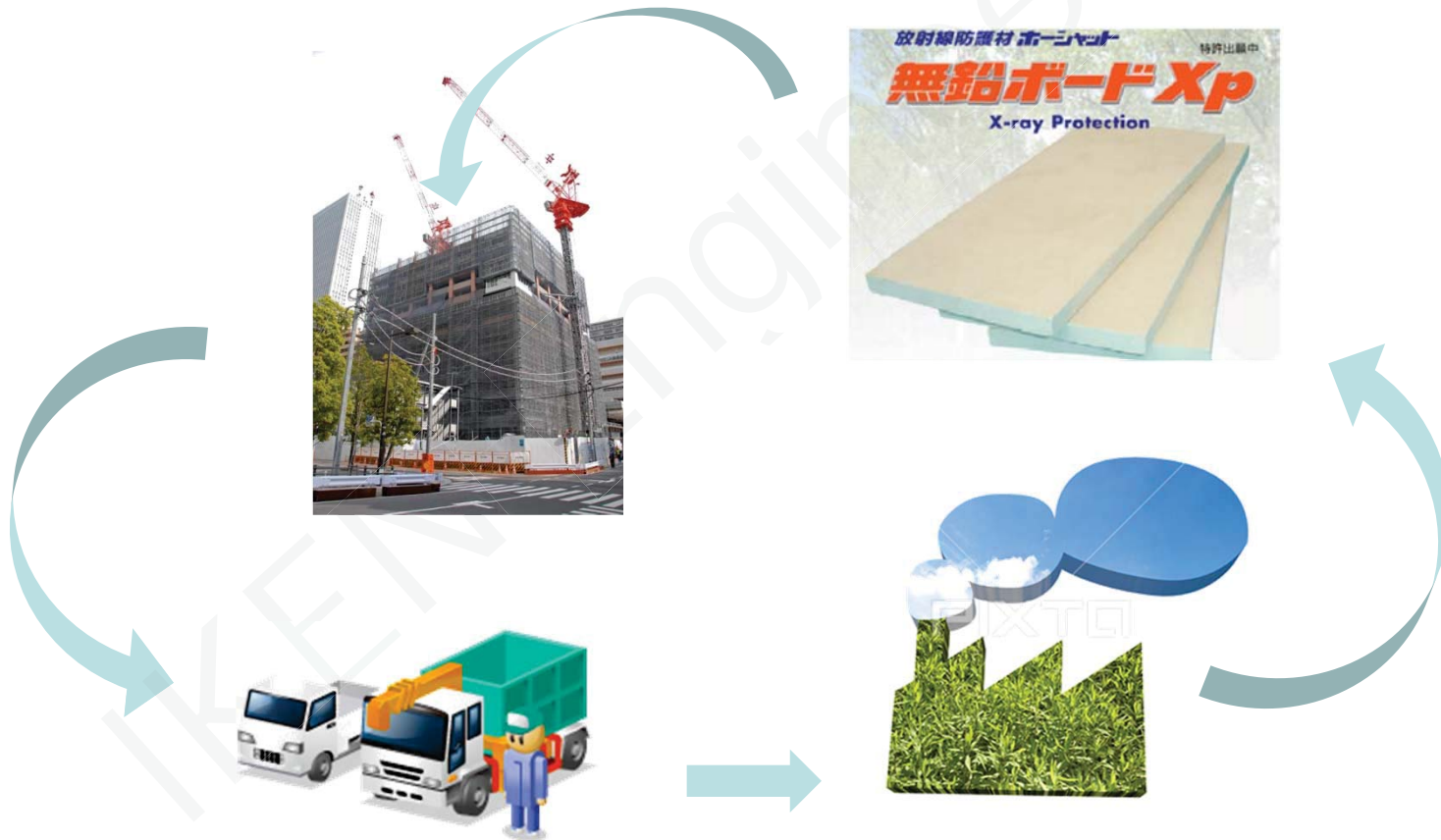
Lead-Free board Xp can avoid exhaust of CO² from roll extension of lead.

	Room type	Amount of leaded boards※	CO ² emission (kg)	Note
CO ² emission examples	Dental X-ray	15	1,080	※Calculated by IKEN Engineering
	General X-ray	20	1,440	
	X-ray TV	35	2,520	
	X-ray CT	40	2,880	
	Angiogram	100	7,200	



Characteristics⑥

- Can be disposed as general construction material and is recyclable.





Characteristics⑦

□ ◆ Stable Pricing

Barium, the main material of Lead-Free Board Xp, is very stable in price change, therefore, we are able to provide the boards with the same price for a long time.

※ Official prices will be answered by our sales staffs.



Scope of Application

- General X-ray
- X-ray TV
- X-ray CT
- Angiography
- Mammography
- C-Arm
- Dental X-ray
- Bone Density

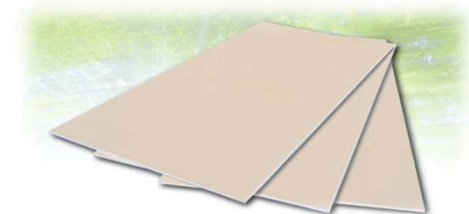


※Apply shielding calculation when to design architecture plan



Achievement

- Since we started providing the board in 2006, a lot of medical facilities including national hospitals have chosen our board because of its eco-friendliness and easiness for installation.
- Chosen by over 2,500 organizations



Lead Free Board Xp



About us – Iken Engineering Co., Ltd.

Consistent Quality Control

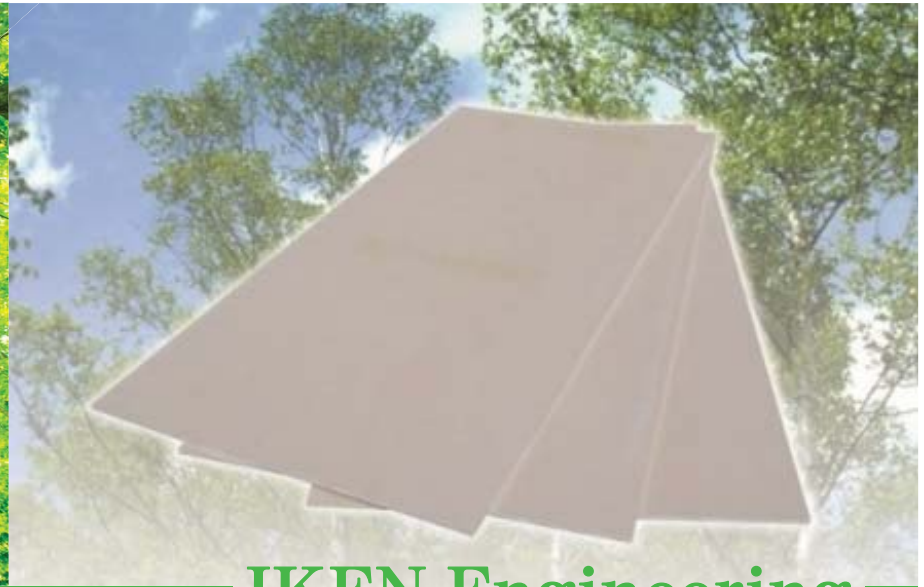
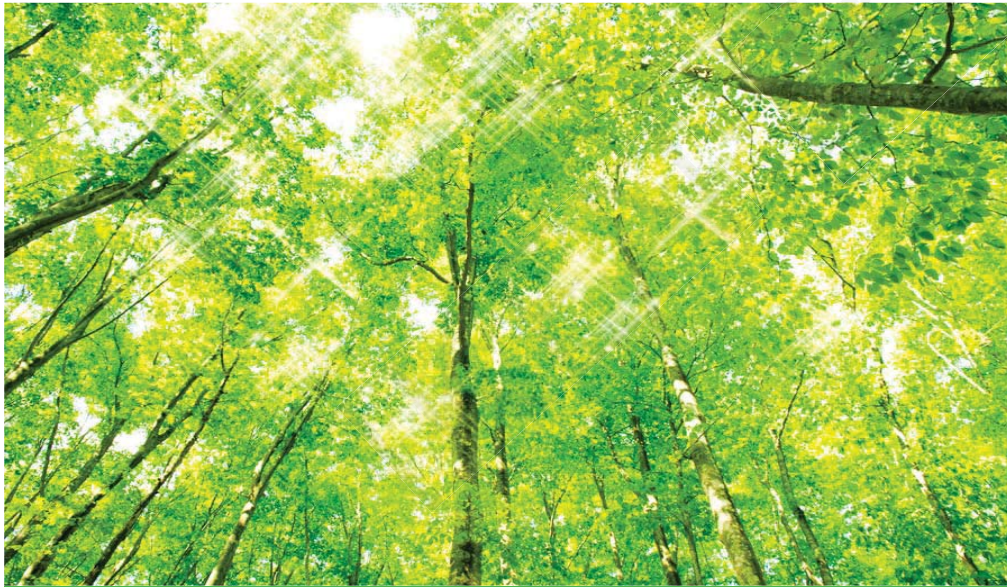
~ Total Solution for X-ray Shielding ~

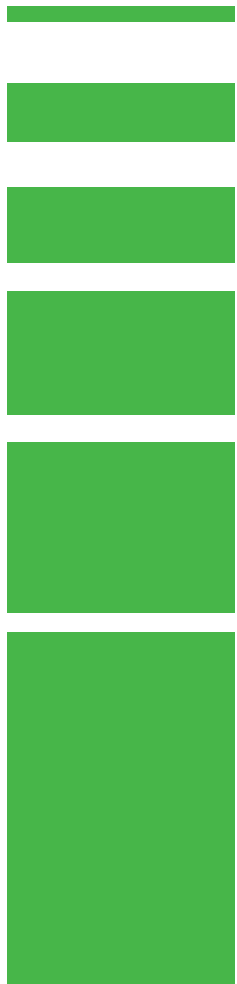




Lastly

We have provided safe, reliable X-ray shielding. We will continue our work through our products such as Lead-Free Board Xp.





Thanks for your time!

Displaying at Booth No.122

Lead Free Board Xp