

Piece together

acoustical panel

Curved acoustical

panel

Pyramid acoustical panel

Wide frequency space

acoustical baffle

panel

### Office The Netherlands

Postbus 154 2800 AD GOUDA

Tel.: +31(0)182353385 Fax: +31(0)182354711 www.abcgeluid.nl

## Flame Retardant ABC International Trade B.V Product Catalogue

Providing "one-stop" service from designing, product recommendation to on-site technical guidance





### I Fiberglass fiber series products

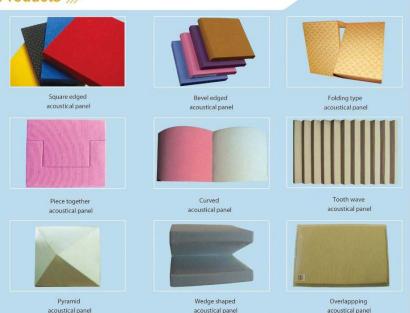
### 1.Environmental friendly energy conservative flame retardant acoustical panels

We select 80kg/m³ high density fiberglass as the core material of the acoustical panel. The perimeter is through hardening treatment shaping, which is environmental friendly and it can prevent the fiber leaking out. The surface can select different types of acoustical fabrics. The products can be custom made into standard panel, irregular panel, radian panel according to customers' different requirements.

Thickness: 15mm, 25mm, 50mm

Installation method: directly gluing method, clip mounting method, hook and loop method

### Products >>>



### 2.Environmental friendly energy conservative acoustical baffle

We select 80kg/m³ high density fiberglass as the core material of the acoustical baffle. The edges are through hardening treatment shaping. The surface of the panels can use different types of sound absorption fabrics. We can also make wide frequency composite cavity board, tooth wave board, ladder board, artistic shaped with cavity board according to the customers' different requirements.

Thickness: (board+cavity) 50mm, 65mm, 75mm, 100mm
Installation method: Gluing directly method, clips mounting method

### Products >>>







General Administration of Sport of China Training Bureau---Weightlifting competition hall

#### 3. Fiberglass ceiling panel



Fiberglass ceiling panel selects high density fiberglass as raw material. It can be glued directly to the ceiling height or used together with ceiling grids. The installation is quite easy and fast. ABC brand fiberglass ceiling panel has better sound absorption effect and higher fire resistance performance.

The flat surface of the product ensures a good decoration effect. Using the fiberglass ceiling panel can help improve the sound environment inside the building and enhance

the function of the building. It also helps control and adjust the room reverberation time, reduce the noise and improve the tone quality.

The special property of ABC brand fiberglass ceiling panel is its new technique to seal the four edges of the panel, instead of gluing at the four edges. This technique can ensure artistic edges and protect the fibers and particles from leaking out.

Standard sizes: 600mm×600mm×20mm, 600mm×1200mm×20mm or any other custom made dimensions.

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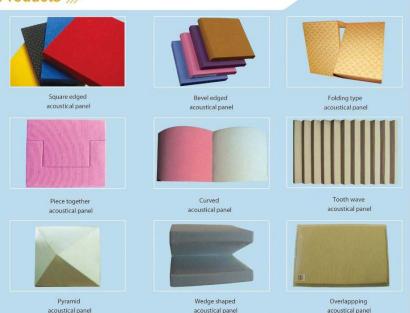
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### Environmental friendly polyester fiber batt (panel) series products

#### 1.Light weight acoustical baffle

Light weight acoustical baffle selects environmental friendly polyester fiber batt as raw material. The surface can be any of the sound absorption fabrics. The regular weight of environmental friendly polyester fiber batt can be  $16 \text{kg/m}^3$ ,  $24 \text{kg/m}^3$ ,  $32 \text{kg/m}^3$ ,  $64 \text{kg/m}^3$ ,  $96 \text{kg/m}^3$ ,  $120 \text{kg/m}^3$ ,  $150 \text{kg/m}^3$ ,  $320 \text{kg/m}^3$ . This product is suitable to be used in finished projects where the sound environment has not been considered and treated before. Its installation is very easy with specialized clips and it can be hung directly by cable wire which will not damage the original construction structure. The light weight acoustical baffle is the best choice among ceiling series products.



#### 2.FJM series

- Physical performance: Environmental friendly polyester fiber batt is made with special technique and has some rigidity, which makes it impact resistant, pressure resistance, good flexibility and good performance of fire resistance and sound absorption, especially wide frequency sound absorption. It has the properties of moisture resistance, energy conservation and it can be made into different images.
- Environmental protection performance: 100% recyclable flame retardant fibers, 100% without any adhesive, different thickness, intensity, no formaldehyde release, moisture resistance, mildew proof.
- Energy conservative performance: The cross-ventilation property can make the fibers dry. Therefore, the fibers can have the functions of heat preservation and energy conservation.
- \* Colors: Any color is available.
- color fastness: Class 4 to class 5.



#### 3.FPKS series

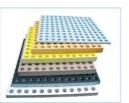
FPKS series use environmental friendly perforated PVC board composited on the surface of environmental friendly polyester fiber batt, which is different from the aluminium board, etc. It has good performance at wide frequency sound absorption and it is decorative with easy installation. FPKS series is the professional acoustical panel product used on walls and ceilings in cinema projects.

PVC Thickness: 4.8mm,6mm,8mm





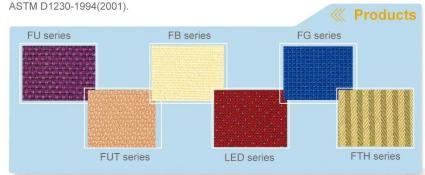




### Environmental friendly energy conservative flame retardant acoustical fabric

The environmental friendly energy conservative flame retardant acoustical fabric is specially used as the surface of acoustical panel and acoustical baffle. As the surface-protective, acoustical and decorative fabric, it has the best function of sound absorption, fire resistance, damp-proof, colorfast, etc. Moreover, it can offer lightweight, heavyweight and overweight types according to the requirements of acoustical frequency among the range from  $300g/m^2$  to  $900g/m^2$ . Meanwhile, it can be also used as the acoustical screen. Its flame retardant function reaches Class B1 and Class non-flammable respectively. The fabric's moisture regain ranges from 0.2% to 0.4%. The fabric is also washable and washing resistant. There are many colors available for your choice.

Passed standards: EN1021-1:2006 Cigarette Test; BS5852 PART 1:1979,Match Test;



### $\overline{\mathrm{IV}}$ Environmental friendly energy conservative flame retardant noise reductive felt

Environmental friendly energy conservative flame retardant noise reductive felt is made of 100% environmental friendly fibers. There are many colors available. The thickness of frieze series felt and corduroy series felt can be 2mm, 3mm or 4mm. The thickness of acoustical felt composited with polyester fiber batt can be 5mm, 12mm, 15mm or 25mm. "FUYI" brand environmental friendly energy conservative acoustical noise reductive felt is eco-friendly, non-toxic, harmless and without any irritative odour. It has good performance at heat preservation, sound absorption and flame retardancy.

The NRC value of 25mm thick acoustical felt composited with polyester fiber batt is 1. PR acoustical noise reductive felt can be widely used beneath or on the wooden flooring or beneath the piano. It can effectively reduce the impact sound. Through the impact sound insulation test, the volume of the improved impact sound is 26dB. Judged according to the floorslab impact sound insulation standard mentioned in "Sound Insulation Designing of Civil Building", the property of impact sound insulation is of Class A, so as to be able to meet the unique requirement of hotels.

Current, there are the following series: frieze series, corduroy series, acoustical felt composited with polyester fiber batt series and PR acoustical noise reductive felt series.



### m V FUWOKE acoustical wall panel system

FUWOKE acoustical wall panel system is combined by track, fabric and panel core material (fiberglass board) or new type FR acoustical fiber core (polyester fiber board). It provides easy and fast installation. It is the frequently used FR acoustical series product for cinemas, theatres, conference room, hotels, etc.



### **VI** Roof series products

### 1.Environmental waterproof acoustical membrane panel

Environmental waterproof acoustical membrane panel is a kind of new environmental friendly and energy conservative acoustical material mounted between the layers created by the roof and perforated metal board or cement fiber board. It changes the traditional method of non full enclosure of the perimeter of the acoustical fiberglass felt. It is environmental friendly, moisture resistant, no fiber leaking out and of stable acoustical effect. Using this product, the black felt behind the perforated metal board and perforated cement fiber board can be ignored. The installation is easy and quick. It is the professional acoustical membrane panel used in natatorium and other places where there is of high moisture density.



### 2.FAL heat insulation energy conservative acoustical panel

FAL heat insulation energy conservative acoustical panel selects high quality glass fiber felt as the core material and uses different thickness composite aluminium foil fully sealing the glass fiber felt.

- ★ Heat insulation energy conservative property: composite fine metal aluminium foil is used as the surface material for fully sealing treatment. It can effectively reflex the radiant heat energy from the Sun; and prevent the indoor energy wastage.
- Non-flammability: the core material and the surface material are all proved to be of Class A fire rating.
- ★ Damp-proof property: the workmanship adopts fully sealing, instead of veneering top and bottom, which completely prevent the dampness eroding the glass fiber felt.
- Noise reduction property: this product is wide frequency sound absorptive, with NRC value being 0.95.

FAL heat insulation energy conservative acoustical panel is of convenient and fast installation. It can meet different specifications and sizes requirements, realizing custom made and avoiding unnecessary troubles and wastages. There is a wide range of applications for this product, such as roof, wall, ground, cellar, air duct, etc.



FAL heat insulation energy conservative acoustical panel



Application of FAL heat insulation energy conservative acoustical panel

### ${ m W}$ Wooden acoustical panel

Wooden acoustical panel is another acoustical product of ABC company. It has good performance at sound absorption and noise reduction, especially for middle and high frequency sound. The wooden acoustical panel is decorative and the pattern can be custom

made, so as to provide the superior visual enjoyment.

It is a eco-friendly product, dampness resistant and mildew resistant, flame retardant with easy installation. The surface material can be melamine or veneer.

Dimension: 128\*2440\*15mm, 128\*2440\*18mm

### Environmental friendly energy conservative flame retardant acoustical curtain

The environmental friendly energy conservative flame retardant acoustical curtain can be made with different cavity according to the specific requirements of sound absorption frequency. There are FU series, FD series and FUU series acoustical curtains.

High efficiency wide frequency with cavity acoustical curtain is a patent product developed by Fuyi company which has the function of high efficiency sound absorption, fire resistance, mildew resistance and decoration effect as well.

Besides its easy installation and sound environment adjustment, it can be operated by hand or by electricity, which has greatly improved the sound environment of buildings. It is widely used in glass wall, high glass window of large buildings and places where acoustical panels can not be used. This product can be made as per the designers' specific requirements and there are hundreds of colors available.

After the test of Center for Building Environment test, Tsinghua University, its NRC value is 0.90 when tested on the ground, while its NRC reaches 0.95 when back cavity is 300mm.



Opposed model



Guangzhou Opera House



e Lift model



Jinan Nanjiao Hotel

### **∭** Stage curtain

The stage curtain provided by ABC company is made of high quality velveteen fabric. It has the superior decoration effect while it blacks out the light. The velveteen fabric used for the stage curtain is of good flame retardance.



Application of the stage curtain is wide, such as conference room, theatre, opera house, hotel, exhibition center, TV station and so on. The dimension and the pattern can be custom made according to customers' requirements.

### **X** Flame retardant carpet

#### 1. Nylon Carpet

It is comparatively easy to clear the dust away from the nylon carpet. Nylon carpet has the ability to be resistant to dirty marks caused by food or drinks. Because of the high melting point and its flame retardancy, the nylon carpet is very popular among its users. Nylon carpet is also of better elasticity, which means it can remain soft after being stepped heavily. Besides, nylon carpet can avoid problems of plague mites and mildews.

Since the nylon carpet is decorative, sound absorptive, noise reductive, heat preservative, thermal conductive, it is suitable to be used in cinemas, theatres, auditorium, schools, offices, etc.







### 2.Carpet tile

The main application of carpet tile is the same as that of wool carpet or nylon carpet. It is used on the ground to reduce the noise and achieve a comfortable and decorative effect. Because of the easy installation, it is very popular to be used in offices and equipment rooms. The size of the carpet tile is usually 50cm by 50cm or 60cm by 60cm.







### X Timber flooring

Because of the properties of being easy to process, small thermal conductivity, impact resistant and superior durability, the timber flooring is very popular among users. It can insulate sound and heat and it can also adjust the humidity inside the room.

The timber flooring can be used in basketball stadium, badminton stadium, volleyball stadium, weightlifting stadium, tennis stadium, stage, fitness center, etc. We have different kinds of wood for your choice, such as maple, oak, Chinese oak, birch, beech and so on.

We control the quality of the timber flooring from moisture content, processing precision.

Thickness: 18mm, 20mm, 22mm, 25mm









Chinese oak

Maple

Maple

Maple

### RODUCT CERTIFICATES

- Patent certificate-Environmental friendly energy conservative flame retardant acoustical panel
- Patent certificate-Environmental friendly energy conservative flame retardant acoustical curtain
- ISO9001:2000 international quality system certificate
- FR mark certificate issued by NFTC
- ASTM E 84 Class A test report-American standard
   ASTM C423 test report-American standard
- Qingdao high-tech enterprise certificate
- Qingdao high-tech product certificate
- Member certificate of China Association of Environmental Protection Industry
- Enterprise Product Executive Standard Certificate of Registry of Shandong Province



# **LROJECTS**



- 2008 Beijing Olympic Games Projects
- · Cinemas, theaters projects
- Gyms and stadiums projects
- Conference Centers projects
- · Radio, TV station etc projects
- Projects abroad
- Natatoriums
- Hotels



- 01 · ShenYang CFGC New Northeast Cinema
- 02 · Qingdao Grand Theater of Olympic Sailing Center 06 · Zibo Cinema
- 03-04 · ShenYang Bailian Cinema

- 05 · New Northeast Cinema
- 07- 09 2010 Shanghai International Cineplex of Expo Entertainment Center





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### ABC International Trade B.V.





- Cinemas , theaters projects
- Gyms and stadiums projects
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- 01 General Administration of Sports of ChinaTraining Bureau -Basketball Competition Hall
- 02 Beijing Olympic Gym Center Yingtung Natatorium-space acoustical baffle
- 03 General Administration of Sport of China Training Bureau Weightlifting Hall
- 04 · Guilin Cinema
- 05 · Yijia Cinema
- 06 Shanghai Qingpu Cineplex
- 07 Qingdao Badaguan Auditorium
- 08 Madagascar International Conference Center Conference Hall Platform Ceiling Panel

