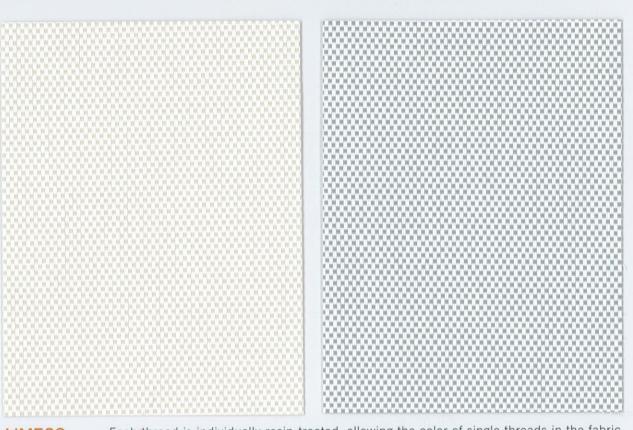
# HIRAOKA ACOUSTIC MESH

# HIRAOKA ACO



#### **HM500**

Each thread is individually resin-treated, allowing the color of single threads in the fabric to be changed.

#### Custom Colors

All other colors or color combinations are available. HIRAOKA can custom match your colors on all of our PVC coated yarn mesh series. Our Custom Color program focuses on matching your desired specifications.



N201



N302



N904



N001



N202



N901



N002



N203



N902



N003



N301



N903

# JSTIC MESH

## **Process of Production**

Coated Yarn Mesh HM500











Polyester yarn

Conventional Mesh



Weaving

**Plastification** 

Polyester yarn

**Fabric** 

**Conventional Mesh** 

# Characteristic

### Ensuring the passage of air even with high-density weaves

We can produce meshes with tiny openings even for tightly woven fabric. These tiny openings enable effective absorption of sound energy or air vibrations.

# Acoustic mesh HM500



Tiny openings in the highly dense fabric absorb air vibrations (sound energy).

Our conventional mesh (SUPERSCREEN 134)

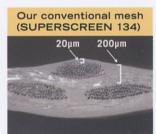


Cannot be processed if the weave density is too high.

#### Uniform resin film

Coated yarn has a more uniform membrane thickness than our conventional mesh. It has outstanding properties for indoor use because of the absence of a thin area in the resin film that triggers degradation by ultraviolet light, humidity and atmospheric chlorine.





# Coated Yarn Mesh

- Threads are individually resin-treated, allowing the color of single threads in the fabric to be changed.
- Different weaving structures and densities can be used, according to the design.
- The fabric can be printed on, allowing you to print whatever patterns or words you like onto it.





# BRANE FABRIGS

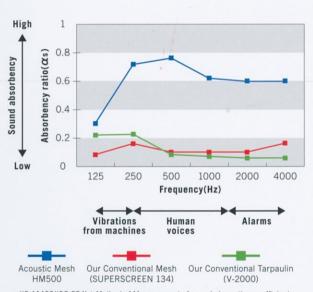
# Sound Absorbency

#### The reason HM500 absorbs noise

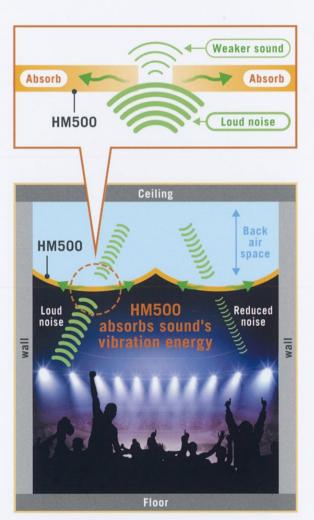
There are two types of sounds we normally hear in the room: direct sound from the source of the sound and echoes, which comes from the direct sound bouncing off of walls. HM500 is installed with an air gap between walls and ceiling surfaces, enabling sound absorbency. When sound hits

HM500, the tiny holes in the material absorb air vibrations, which give sound its energy; as the sound penetrates to the other side of the membrane, it becomes weaker.

The sound echoes at the other side of the membrane then bounces onto the membrane, further absorbing the sound energy. By the time it reaches our ears, the resulting sound becomes very weak. The larger the space behind the membrane, the more the sound energy is reduced, resulting in increased sound absorbency.



JIS A1409(ISO 354): Method of Measurement of sound absorption coefficients in a reverberation room (Back air space: 300mm)



Though the HM500 is less than 1 mm thick, it absorbs a wide range of frequencies, from low to high. By absorbing many sounds that echo about in the room, it enables people to hear the voices of others more clearly. It can be used in conference and audiovisual rooms, or any place where you wish to reduce echoes.

Product name	Acountic Mesh HM500	Our conventional mesh (ŞUPERSCREEN 134)	Our conventional tarpaulin (V-2000)
N.R.C.	0.68	0.12	0.11

N.R.C.: Noise Reduction Coefficient

The values are averaged from the absorbency ratios at 250, 500, 1000 and 2000 Hz from the 1/3 octave band center frequencies.







### Since 1902, we have been the Pioneer of Tent Sheets

With our innovative production techniques and processing technology Hiraoka set new standards. We apply high quality polymer coatings to various textiles to produce specialized membranes for a wide range of applications. Years of experience allow us to meet the demands of our customers and society.

When Hiraoka originally commenced business in 1902, we scoured and dyed cotton and hemp products. Our mission today is to design and develop a range of products that reflect our customer's changing demands and the environments in which we live. Currently, we supply a range of creative membrane fabrics all over the world, including specialized materials for architectural structures.

#### ACCREDITATION

Our ISO 9001 compliant Quality Management System ensures absolute quality, consistency, and customer satisfaction. Our business system is accredited by UKAS, the United Kingdom Accreditation Service.





#### CERTIFICATION

We offer our clients professional services of an in-house team of registered, practicing engineers. This quality assurance ensures that our products are fully certified and meet all international standards.

#### SUSTAINABILITY

We proudly support numerous ecological initiatives. Our Research & Development Division continues to produce more current and greener products.

## **Technical Properties**

Technical deta	Standard	Unit	HM500
.cu.	ASTM-D751	cm	300
Width		inch	118.1
	ASTM-D751	m	30
Length/Roll		yard	33
Thiston	ASTM-D751	mm	0.8
Thickness		mil	32
الماسانية	ASTM-D751	g/m²	600
Weight		oz/yd²	17.7
Taradia Charanth	ASTM-D751	daN/5cm	280/190
Tensile Strength		lbs/inch	320/217
Breaking Elongation	ASTM-D751	%	40/29
Ot	ASTM-D751	daN	20/11
Tear Strength(Trapezoid)		lbs	45/25
Solar transmittance	ASTM E424-71	%	14.3(N002), 8.3(N003)
Flame retardant properties	EN 13501-1		B-s1, d0

The above mentioned data are average measurement value and are given as an indication. The purchasers may need to make an exmination for your self for your particular purpose. This information is subject to revision without notice an new technilogical developments or modification become available.

# HIRAOKA ACOUSTIC MESH





















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