

# JINAN EMI SHIELDING TECHNOLOGY CO.,LTD.

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microwave absorber based on carbon-loaded foam. Besides, we can design special microwave absorbers according to customers' requirements. Moreover, we can provide various specific services in anechoic chamber design, installation, test and measurement. Examined by authoritative departments, our microwave absorbers have been as far as overseas' in reflectivity performance and fire retardancy. By now, we have successfully constructed more than 200 anechoic chambers which were widely used in the electronics, telecommunications, defense and aerospace industries. Enjoying high reputation, our absorbers have been successfully exported into the international market such as Korea , UK and USA .

## **JA microwave pyramidal absorber:**



aligned light blue quadrangular pyramid, possessing good fireproof performance which fulfills American NRL Report 8093. Service temperature:  $-50\text{ }^{\circ}\text{C} \sim 70\text{ }^{\circ}\text{C}$  . It is of good vertical incidence 、 oblique incidence 、 scattering and isolated decay performances at the wideband range. It is mainly used for subject material of anechoic chambers.

Model Number	Height (mm)	Maximum Reflectivity at normal incidence -dB GHz								Base Dimension (mm)
		15	10	6	3	1.5	0.5	0.3	0.2	
JA-30	30	30	30							500 x 500
JA-45	45	40	35	30						500 x 500
JA-70	70	45	40	30						500 x 500
JA-100	100	45	40	35	30					500 x 500
JA-150	150	50	45	40	35					500 x 500
JA-200	200	50	50	45	40	30				500 x 500
JA-300	300	50	50	50	40	35				500 x 500
JA-400	400	50	50	50	45	40				500 x 500
JA-500	500	50	50	50	45	40	30	25		500 x 500
JA-600	600	50	50	50	45	40	35	30	20	600 x 600
JA-700	700	50	50	50	50	40	35	30	20	500 x 500
JA-900	900	50	50	50	50	45	35	30	20	600 x 600
JA-1000	1000	50	50	50	50	45	40	30	25	610 x 610
JA-1200	1200	50	50	50	50	45	40	35	30	610 x 610
JA-1500	1500	50	50	50	50	50	40	35	30	305 x 305

**JA-WW walkway absorber:**

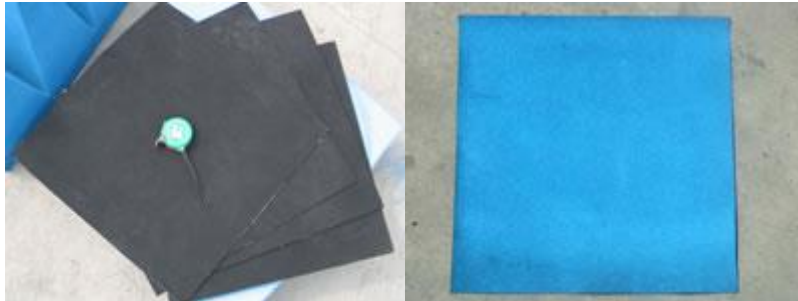


multi-layer semi-hardening lather plastic plate, possessing certain compressive strength. Its skin is wrapped up in cloth covers. It is used for walkway material of anechoic chambers. It can also work as an absorption screen or a radar chamber to test EMC.

Model Number	Height (mm)	Weight ( kg/m)	Lowest service frequency (GHz)	Maximum Reflectivity at normal incidence (-dB)
JA-WW-13	13	1	10	17
JA-WW-25	26	1.6	5	17
JA-WW-50	50	3	2.5	17
JA-WW-100	100	6	1.3	17
JA-WW-200	200	11	0.6	17
JA-WW-300	300	16.5	0.45	17

JA-WW-400	400	24	0.35	17
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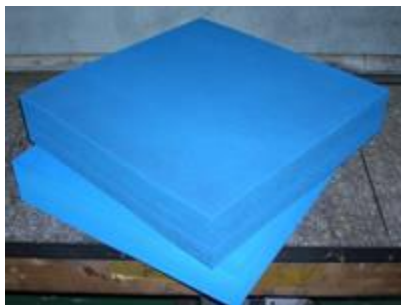
**JAT flat laminate absorber:**



light blue thin-layer soft plastic sheet. It can be bent, mainly applied in aerial feed inner which is strict in thickness and weight.

Model Number	Height (mm)	Weight( kg/m <sup>2</sup> )	Lowest service frequency(GHz)	Maximum Reflectivity at normal incidence (-dB)
JAT-8	8	1.6	5.5	>15
JAT-5	5	1	9.4	>15
JAT-3	3	0.6	15	>15

**JAL flat laminate absorber:**

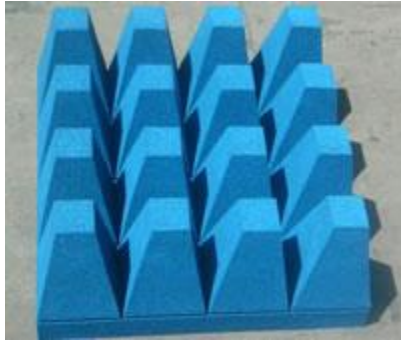


multi-layer soft plastic plate which can be bent, mainly used for the radar chamber aerial system inside 、 turret testing frame, etc. It can eliminate reflection interference.

Model Number	Height (mm)	Weight ( kg/m <sup>2</sup> )	service frequency (GHz)	Maximum Reflectivity at normal incidence (-dB)
JAL-9	9	1.2	14 ~ 40	17 ~ 25
JAL-13	13	1.5	10 ~ 40	17 ~ 25
JAL-20	20	2.1	6 ~ 40	17 ~ 25
JAL-25	25	2.5	5 ~ 40	17 ~ 25

JAL-30	30	3.1	4 ~ 40	17 ~ 25
JAL-45	45	4.6	2.7 ~ 40	17 ~ 25
JAL-70	70	7.2	1.7 ~ 40	17 ~ 25
JAL-100	100	10.3	1.2 ~ 40	17 ~ 25

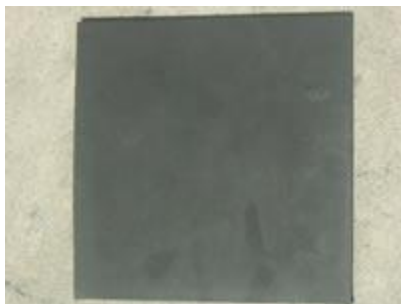
**JAS compound absorber:**



compound absorber material used for EMC anechoic chambers. It consists of thin ferrite tile, matching sheet and conical absorber material. It can provide enough wideband performance to test EMC anechoic chambers at the range of frequency from 30MHz to 30GHz.

Model Number	Height (mm)	Maximum Reflectivity at normal incidence -dB								Base Dimension (mm)
		GHz								
		0.03	0.10	0.3	1.0	3.0	5.0	10	18	
JAS-400	406	14	20	20	25	20	20	25	40	500 x 500
JAS-600	606	16	20	22	25	20	25	40	40	600 x 600

**JRAT rubber sheet absorber:**



is a series of absorber made of rubber filled with magnetic material. It is resonant absorber from its absorbing principle. Flexible and thin thickness, RAT can achieve an optimal absorbance in a narrow band. However the band is still broader than those non-magnetic materials. The reflectivity at normal incidence could be up to -17 ~ -25 dB at resonant frequency. And the relative frequency width is 24% and 35% separately for the reflectivity of -13dB and -10dB. Little change is caused by the 30 degrees incidence and -15dB for 45

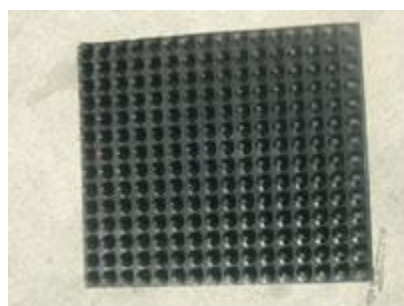
degrees. As for 60 degrees, the vertical polarization is about -7dB and the horizontal polarization is about -13dB.

RAT is in gray color and has good strength and aging-proof capability. It can work -50~+100°C . Another heat-resistant model, silicon rubber is available that can work in -50~+180°C .

RAT must be applied closely to the metal base.

Model Number	Height (mm)	Weight ( kg/m 2 )	Frequency (GHz)	Reflectivity at normal incidence (-dB)	Dimension ( mm )
JRAT -15G	1.2	3.7	~15	17~20	200x200
JRAT -10G	1.7	5	~10	17~20	200x200
JRAT -9.4G	1.8	5.2	~9.4	17~20	200x200
JRAT -5.5G	2.8	9	~5.5	17~20	200x200
JRAT -3G	5.5	16	~3	17~20	200x200
JRAT -2G	7.5	22	~2	15~20	200x200

#### JRA Rubber Conical Absorber :

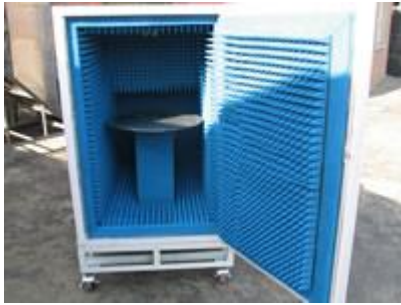


is a kind of broadband absorber for millimeter wave . The reflectivity at normal incidence is -17dB and -25dB separately for the material thickness in wavelength of 0.35 and 1. For 60 Celsius off normal incidence, the reflectivity downgrades to -10~-17dB. Black, very good strength, excellent environment resistance and durability, RA can work outside in wretched environments with moisture and salty fog. RA is flexible can be curved when applied. Its power handling capability is 0.3w/cm 2 and can be operational at -50 ~ +100 °C . RA is mainly used around radar and antenna, to isolate the remit and receive antenna, to cover the ship mast, to build small anechoic box and to cover those reflective components in testing fields, so as to eliminate interference and unnecessary reflection.

Model Number	Height (mm)	Weight ( kg/m 2 )	Frequency (GHz)	Reflectivity at normal incidence (-dB)	Dimension (mm)
JRA-6	6	4.5	15 ~ 35	17 ~ 25	200X200
JRA-10	10	6.9	10 ~ 35	17 ~ 25	200X200

JRA-16	16	9.0	6 ~ 35	17 ~ 25	192X192
JRA-25	25	13	4 ~ 35	17 ~ 25	200X200

**Anechoic box:**



is a wooden box with copperplate or ferrous board in the interspace to shield electromagnetic wave. Absorbers are stuck to the copperplate or ferrous board. Anechoic box is mainly used to test mini-type antenna's or electronic apparatus' capability of receiving & dispatching signals and anti-jamming. Different dimensions of such an anechoic box are available according to customers' requirements.