

Radiation-absorbing materials of the CCA series

The materials are designed for the effective solution of practical problems related to electromagnetic compatibility and protection of elements and units of aircraft from external electromagnetic radiation in a wide frequency range. They can be used to cover the internal niche of the meteorological radar in civilian aircraft, as an absorber for compact anechoic chambers, matched loads, etc.

Microwave absorbers of the CCA series are non-combustible, have a low density and high elasticity. A feature of this class of absorbers is thermal resistance in oxidizing media up to 400-450 °C, as well as high chemical resistance to acids, alkalis, and solvents.

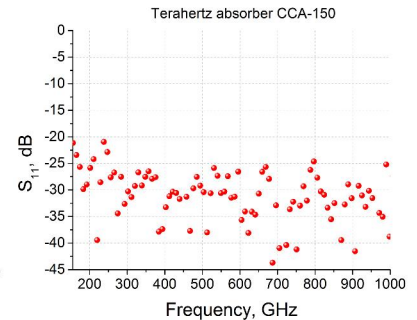
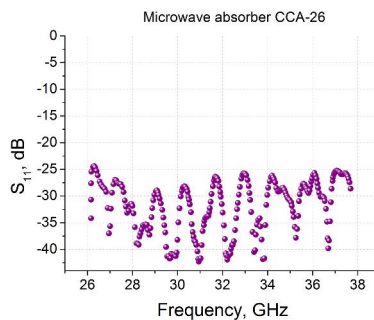
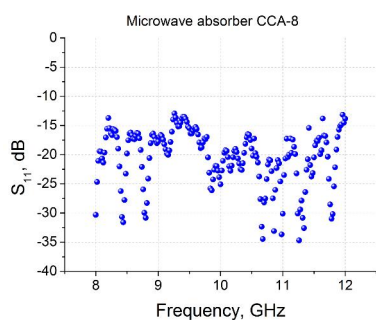


Fig. 1 - General view of absorbers CCA-8 (left), CCA-26 (right).

The principle of operation of the absorber is based on the matching of the impedances of free space and the absorber, and the effective absorption of microwave radiation is achieved due to the high ohmic losses in the material.

Table 1. - The main characteristics of the absorbers of the CCA series.

Material name	Minimal working frequency, GHz	Maximum amplitude of reflected signal, dB	Thickness, mm	Density, g/cm ³	Comments
CCA-8	8	-13	8	0.9-1.2	
CCA -12	12	-30	6	0.9-1.2	In progress
CCA -26	26	-24	5	0.9-1.2	
CCA -150	150	-21	5	0.9-1.2	



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