

# TIP OF THE SPEAR

## Introducing the new *MT45-JT*

a long-lasting, javelin-tipped, high performance polystyrene absorber.



Polystyrene absorbers are well known for their durability. Thanks to our patented Javelin Tip design, they finally offer the performance to match. The result is a polystyrene absorber for high performance antenna test ranges that comes with a 25 year warranty. The MT45-JT. A new era in absorber technology.



# The next step in polystyrene absorber technology

Polystyrene absorbers have always been far more durable and stable than their polyurethane foam counterparts. But in terms of performance, foam used to be the better option, until now that is. After nearly two years of development, we are ready to introduce an entirely new kind of polystyrene absorber that bridges the gap. It's the MT45-JT and it marks the start of a new era in absorber technology.

## Introducing the MT45-JT

The MT45-JT owes its name to the recognizable Javelin tip it's equipped with. This specially designed tip allows the absorber to operate in frequencies from 500 MHz all the way up to 40GHz, meaning our polystyrene absorber is now able to match the performance of traditional foam absorbers, making it by far the best choice for use in full anechoic chambers and antenna test ranges.

## Polyurethane versus polystyrene

We have long been staunch advocates of polystyrene absorbers, since these offer many advantages over their polyurethane foam counterparts. They have superior rigidity and tensile strength, they are compliant with all necessary fire retardant standards without the use

of hazardous materials and they are highly resilient to changes in ambient humidity and temperature. This results in an extremely durable product that comes with a 25 year warranty and is expected to last well beyond that.



## Features and benefits

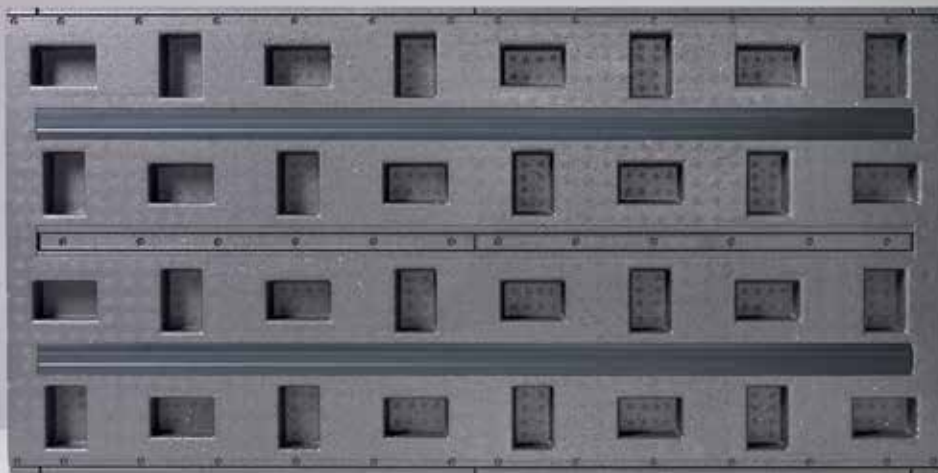
- Enhanced product design featuring
  - Alternating tapers (vertical / horizontal)
  - Light weight (40% lighter than foam)
  - Removable tapers
- Certified for use in clean rooms (class 10.000 / ISO14644-1 class 4)
- Uniform carbon cell loading
- Compliant with fire retardant standard ISO 11925-2 class E
- Rigidity and superior tensile strength (no drooping tips)
- Resilience to humidity (non-hygroscopic)
- Superior product life (upwards of 40 years)

Comtest polystyrene absorbers do not contain poisonous fire-retardant chemicals and are sustainable, eco-friendly and compliant with REACH and ROHS.



## No downsides

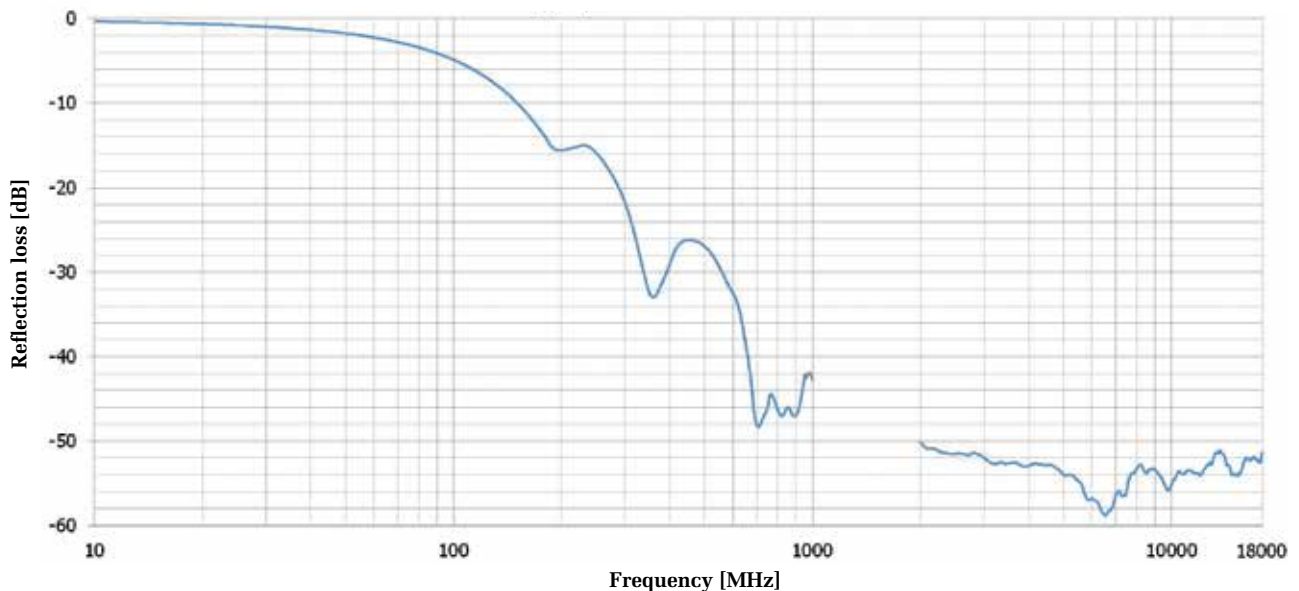
What all of this means is there are no longer any downsides to using polystyrene absorbers for microwave frequency testing. Thanks to a patented design, Comtest's new polystyrene absorbers offer performance that matches their incredible durability. Are you interested in a full anechoic chamber or antenna test range equipped with the latest in polystyrene absorber technology? Contact us today to discuss the possibilities.



## Specifications:

Specification	Description
Material	Closed-cell polystyrene
Dimensions	1200*600*450mm (height)
Weight	9.75 Kg / m <sup>2</sup>
Color	Dark Grey
Humidity resistance	Non-hygroscopic
Product life time	>25 years
Power Handling	1500 W/m <sup>2</sup> (CW)
Frequency range	500 MHz – 40 GHz
Fire retardancy	ISO 11925-2 class E
Clean room spec.	Class 10.000 / ISO14644-1 class 4
Reach & ROHS compliant	Yes

### Typical reflectivity at normal incidence:



Test results are collected in accordance with IEEE std 1128-1998. This standard suggests to use the arch measurements method at  $f > 1\text{GHz}$  and put certain limits on a sample size. Considering these limits, the arch set-up available in Comtest lab enables fair reflectivity measurements in 2-18GHz frequency range but can cause inaccurate results for 1-2GHz band following the IEEE std 1128-1998 method. In this respect the results collected at 1-2GHz frequencies are excluded from the above plot to provide intelligent and justified measurement data only.

### Warranty

Values shown are based on testing of laboratory test specimens and represent data that falls within the normal range purpose. These values are not intended for use in establishing maximum, minimum or ranges of values for specification purposes. Any determination of the suitability of the material or any use contemplated by the user and the manner of such use is the sole responsibility of the user who must assure that the material as subsequently processed meets the needs of this particular product or use. The given information is based on data and knowledge considered to be true and accurate and is offered for the user's consideration, investigation and verification but we don't warrant the results to be obtained.



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