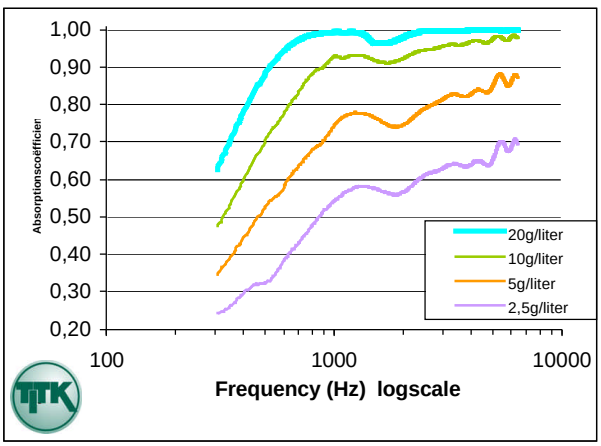
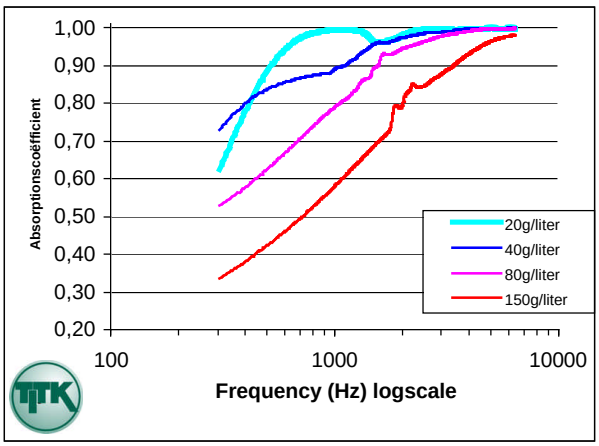
TWARON® Angel Hair

TWARON Angel Hair is a wadding product, especially developed for absorbing and damping of the audio frequency range, f.e. in loudspeakers, damping panels, etc.
It is easy to work with, not aging and stays in place since it has the permanent attitude of expanding, so it will fill the space it is given. Behaviour of this material is so different compared to all known other materials that you simply have to try this at least……

Human hair compared to TWARON Angel Hair

The extreme thin TWARON fibers are cut in 60mm pieces and carded to the elastic and easy to use wadding mass as it is supplied. Unlike glass- and other synthetic fibers, TWARON is conducting heat (due to caused vibrations) very well and so absorbing the acoustic movement energy extremely well.
Together with the choice of the correct length of the fibers and the right way to card it to a workable mass, the results are quite ashtonishing as noticed now by an increasing number of professionals in the audio community.
Many like to see the frequency/damping behaviour as shown below, which is unlike all other known materials and working over the full audio band and easy to adjust by filling the box with the right amount of TWARON Angel Hair.





As the left graph shows, use in loudspeaker systems an amount of 3-10 grams/liter volume appears to be a usefull amount, depending on the used frequency range and size/type of loudspeaker. You do NOT need to fill large loudspeakers and basreflex speakers completely; doing so would acoustically “kill” your precious loudspeaker system. In these cases we advise to fill just the space behind the woofer.
What is hardly to present in graphs is where it actually is all about: used in loudspeaker systems you will notice the increase of small signal response, like room reflections of the recording area and other small sounds like instrument mechanic sounds immediatelly. Also the “speed” and 3D representation of the system will increase as you will find acknowledged by some reviewers by now.
You can find **STS Digital's** (from demo CD’s) interesting demo’s on You Tube. Check for STS Wilson Puppy

While filling absorption panels or tube traps with even more TWARON Angel Hair, they will absorb a certain mid/high range of room reflections. The more you fill (right graph), the less low frequencies will be damped due to the fact that the TWARON Angel Hair filling becomes more dense. A maximum is achieved with 150 grams/liter where the material gets so dense that it shows a steep absorption characteristic, where voice range is minimum affected and only high frequency reflections are damped maximal. This could be an ideal solution for sound improvement of very “empty” rooms where voices need to be reproduced. Most lineair damping is achieved with only 20 grams/liter as shown above, absorbing all sounds above 700Hz.

www.twaron-angelhair.com