

ACOUSTIC TREATMENT CHEAT SHEET



WHAT MATERIAL SHOULD YOU USE

One of the most important parts of acoustic treatment is choosing the right material to purchase or make.

- Foam Treatment
 - Pros
 - Cheaper
 - Easy to set up
 - Negatives
 - Don't absorb low-end
 - Can make room sound "stuffy"
- Rockwool
 - Rockwool is the best choice for most studios
 - Covers a larger amount of frequencies
 - More effective in correcting room issues

THE PURPOSE OF ACOUSTIC TREATMENT

There are two methods to acoustic treatment. You can make it sound good for recording, or you can make it sound good for mixing.

- Recording
 - Generally a more live sound
 - Treatment is only there to fix mild issues in the room
 - Already a “good” sounding room
- Mixing
 - We want a reflection free zone
 - Even response in the room
 - Lots of absorption to achieve this
- Home Studio
 - Treat your room for mixing
 - That will tend to help with your recordings as well

WHAT YOU NEED

There are two key things we need to treat a room. First is bass traps, second is treating the reflection points.

- Bass traps
 - Help to negate standing waves in the corners of rooms
 - Typically build up from 20 Hz-700 Hz
 - This is where a lot of issues with translation can occur
 - Best placed in corners
 - Check out these bass trap options:
 - [Floor-to-Ceiling](#)
 - [Ceiling Corners](#)
 - You can also use beds, sofas, and mattresses in corners if you can't install bass traps in a particular corner
- Reflection Treatment
 - Your monitors will send sound to your ear, but it will also send it around the room.
 - The left and right walls are where it will be the worst
 - The reflection of sound will arrive at your ear just a bit later than the direct sound coming from the speaker causing comb-filtering
 - There are four reflection points
 - Side Walls
 - Ceiling
 - Floor/Desk
 - Sit in your listening position and take note of where the sound will reflect
 - Add treatment accordingly
 - Side Walls
 - Usually a few panels on the side walls
 - Ceiling

- A panel or two on the ceiling
- Floor/Desk
 - If your monitors are far in front of you they will most likely reflect on the floor
 - Add treatment on the ground
 - If they are closer or on your desk they will most likely reflect off of your desk
 - Try one of these
 - Add treatment to desk
 - Tilt the desk about 10 degrees
 - Add something on top of the desk that acts as a tilt
- Rear wall
 - Less important
 - Panels on the wall should be enough to reduce room sound and reflections
- Front wall
 - Most frequencies will travel directionally away from the front wall
 - It's less important to have treatment there

ACOUSTIC TREATMENT CHECKLIST

Make sure you go through this checklist as you setup your acoustic treatment:

- Analyzed each room available and picked the best
- Correctly placed your monitors
- Determine where you need acoustic treatment
- Decide on the type of acoustic treatment you will use
- Buy or build acoustic treatment
- Place bass traps from floor to ceiling in the corners of the room
- Add treatment to first reflection points on walls
- If possible leave air gaps in treatment to better absorb low frequencies
- Tilt desk forward by around 10° or add an angled piece of wood to the top of desk
- Or add treatment to the floor
- Take room measurements using EQ Wizard to confirm fixes/adjust treatment

- ❑ Mix in your treated studio!

RESOURCES

- [GIK absorption coefficients](#)
- [Auralex absorption coefficients \(NRC\)](#)
- [GIK floor to ceiling tri traps](#)
- [Primacoustic small corner traps](#)
- [How to build your own acoustic panels](#)
- [GIK panels](#)
- [RealTraps Guide](#)
- [Room EQ Wizard download](#)
- [GIK tutorial on Room EQ Wizard](#)
- [Sonarworks Reference \(room calibration\)](#)