Angel Vinyl

Vinyl Mastering Guidelines:

Audio files
We accept and work with WAV, AIFF, FLAC (lossless). Please, don‘t use mp3, mp4, wma and/or other transcoded or compressed formats. Neither Audio-CD is recommended, as it offers no CRC check.

Bit-rate
16 bit is sufficient, 24 bit optimal, 32 bit is fine but not necessary bit rate. Also, take care of a headroom on your recordings. If not important from an artistic point of view, do not go higher than -12 dB RMS in loudness. If the master is louder, we can‘t guarantee distortion-free results of the cut, pressing or playback process.

Sampling rate
Definitely 44100 Hz or higher. Frequency range of a record is considered to be 20 - 20000 Hz and the cutting head is able to go and cut frequencies even beyond these limits. But most of the common record players and pick-ups are not able to reproduce all the grooves cut. Very high frequencies at hot levels may be of a main concern, as they can lead to undesired distortions due to tracing failures. This also depends on the disc radius where the music is picked up: the closer to the inner diameters, the slower the needle runs through the grooves...and the possibility of high end imperfect reproduction rises. We also may say the frequency response of a vinyl record is permanently changing while playback. For a perfect result, especially on 33 RPM, it helps to cut songs with a larger high-end content and higher dynamics on the outer diameters, at the beginning of a record‘s side. And to save your mellow songs & ballads for the ends of each side ;-)

Sibilance
Use of the de-essers on vocal tracks with a lot of sibilance is recommended. Sibilance may produce bursts of high frequencies leading to distortions. As a human ear is very sensitive to these frequencies, result may be really annoying to listen to. We can use a de-esser on the file(s) provided by you, but applying it during your mixdown offers a much more transparent results.

Stereo
The stereo information (side signal in MS coding) should be 6dB lower than the mono information (mid signal in MS coding). Or: the stereo field should never be louder than half of the mono level. For very loud cuts a distance of at least 9 dB is better to avoid tracing problems. Also, it is not recommended to work with any important stereo content below 200 Hz. Mono grooves are modulated horizontally, but all the stereo information is written vertically, so the modulation is much more limited there to prevent the needle from skipping. Correlation not above 90° for LPs, not above 60° for loud maxi single cuts.

Loudness
The levels that are cut depend primarily on the running length of the material.
Each groove occupies a certain space: loud bass grooves take the most of it, then a wide stereo signal follows. The louder you want the cut, the less space you‘ve got available and shorter the sides must be. And vice versa - lower cuts means more space available and thus playtime per side rises.

Approximate playing times for a 12“ vinyl record related to the cutting level:

maximum DJ use level (+6dB): 6 min @ 45 RPM, 8 min @ 33 RPM
sufficient DJ use level (+4dB): 8 min @ 45 RPM, 11 min @ 33 RPM
minimum DJ use level (0dB): 11 min @ 45 RPM, 15 min @ 33 RPM
maximum playing time per side achievable with reasonable loudness (around -6dB and lower):
18 min @ 45 RPM, 24 min @ 33 RPM in levels

These estimated times consider usual music program. Further side length increase is possible in certain cases, eg. longer parts of low level (spoken word, acoustic music). These sequences can be cut with less of the bass contents, which can contribute to saving some space on a record.

Pauses / gaps between songs
Please, ensure your audio material contains pauses or gaps exactly at the points you want them to be on the pressed record. Having one track for each side with gap markers is the best option. It is safe and convenient for both you and us.
The transmission grooves (optical gaps between tracks) can be cut anywhere, they are not tied to actual silence in the audio. For this reason it is important to know the exact gaps positions. In case there are no pauses indicated or having songs as individual files, please let us know, whether you ask for no gaps or standard pausings of 2 seconds (any lenght can be set).
And yes, it is good to ask and discuss everything twice before the cut is executed. It saves time and money!