

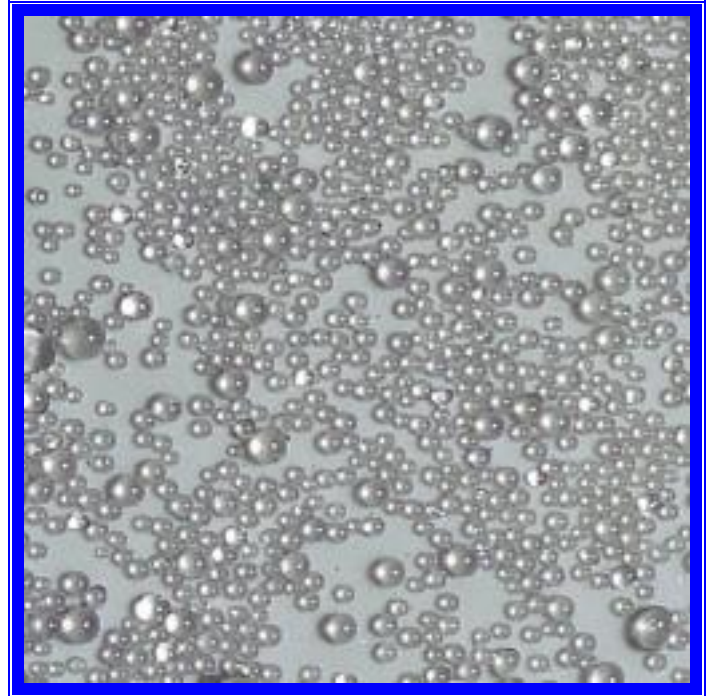


Glass Impact Media (Glass Beads)

Glass impact media is part of the “magic” of mechanical plating. Without the development of unplateable glass media by 3M in the mid-1950’s, it is likely mechanical plating would be merely a laboratory curiosity. Mechanical plating and mechanical galvanizing utilize the energy in glass beads to “cold-weld” the plating metal to the surface of the part to be plated. The selection of the impact media has an important effect on the quality of the plating obtained.

The most common media mix is:

4 parts	4 - 5 mm beads
2 parts	10 - 13 mesh beads
1 part	16 - 25 mesh beads
1 part	50 mesh beads



Glass Beads

On some part types, one media size will become lodged. The plater must carefully select a media mix that will not lodge.

For some part types, the best alternative is to use straight 50 mesh - 100 mesh with no larger media. If the parts act similarly to the media, this will work well.

For other parts, platers have developed special media formulations. Much flexibility is possible in mechanical plating. We do not recommend the use of formulations without fine mesh impact media. Without fine media, the deposit is rough, the efficiency is low, and the throw into recesses suffers.

During the plating process (including, in particular, the separation and media return) the fine media is typically lost from the system due to drag out, and must then be periodically replaced.

For mechanical plating, the usual “rule of thumb” is that for each part (by volume) of live load of articles being plated, the plater uses one part of media. Thus a cubic foot of parts uses a cubic foot of media. For mechanical galvanizing (thicknesses over 0.001”) the general rule is to use 2 parts of media to one part of parts (2:1) to provide additional cushioning to prevent chipping during the plating process. If the part type is difficult, the ratio of impact media to parts may be increased even more.

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