10.3 Paint Thickness – Why Is It Important?

Before commencing any form of machine polishing it is advisable that you know the depth of the paint. Some primer, paint and clear coat combinations are very thin, some are thicker. As machine polishing removes blemishes by removing layers of clear coat, it's a good idea to know how much you have to play with to prevent accidental burn-through.

Paint and associated layers are measured in microns. 1 micron = 1000th of a millimetre. Modern clear coat depths range from around 32 microns to 102 microns. Machine polishing will remove 2-3 microns of clear coat (unless very abrasive compound / pad combinations are used). This is usually enough to remove most imperfections (refer to 10.2. Understanding Paint Defects for further information).

To measure your paint use a Paint Depth Gauge. There are many different models available and typically, the more sophisticated the gauge, the higher the price tag. All of them give the reading for the clear coat and the paint layers combined. Some gauges only work on painted steel panels, others will work on other, non-conductive substrates such as brass, aluminium and plastic – particularly handy if you have colour coded bumpers or a 'plastic' car, such as a Smart car!

Taking paint depth readings can yield some surprising results, particularly if the car was bought as a 'used car'. Sometimes a panel will give a thicker paint depth reading, indicating a previous re-spray – something that may not have been revealed at the point of sale.