



## PROPER MIXING – BUT HOW?

Here's a brief description of the procedure for mixing Hesse 2-component lacquers.

| Mixing ratio<br>(by volume) | 1:2               | 1:1  | 2:1   | 4:1   | 5:1  | 10:1  | 100:1 |
|-----------------------------|-------------------|------|-------|-------|------|-------|-------|
| Lacquer (litres)            | Hardener (litres) |      |       |       |      |       |       |
| 0,25                        | 0,5               | 0,25 | 0,125 | 0,063 | 0,05 | 0,025 | 0,003 |
| 0.5                         | 1                 | 0,5  | 0,25  | 0,125 | 0,1  | 0,05  | 0,005 |
| 1                           | 2                 | 1    | 0,5   | 0,25  | 0,2  | 0,1   | 0,01  |
| 2,5                         | 5                 | 2,5  | 1,25  | 0,625 | 0,5  | 0,25  | 0,025 |
| 5                           | 10                | 5    | 2,5   | 1,25  | 1    | 0,5   | 0,05  |
| 10                          | 20                | 10   | 5     | 2,5   | 2    | 1     | 0,1   |
| 25                          | 50                | 25   | 12,5  | 6,25  | 5    | 2,5   | 0,25  |

The two components, the lacquer and the appropriate hardener, need to be mixed together before the lacquer can be used. This should be done in accordance with the mixing ratio specified on the label or in the lacquer's technical information. But what does a mixing ratio (by volume) 10 : 1 actually mean? A mixing ratio 10 : 1 means that you need 10 parts of lacquer and 1 part hardener. As the mixing ratio here is given by volume, the component parts have to be measured according to volume too (i.e. in litres). A suitable measuring container will obviously be useful. If you want to harden 5 litres of our 2C water-based lacquer, then you'll need to add 0.5 litres of the appropriate hardener.

But what if your Hesse product is very dense, and is sold in kilograms rather than litres? You can still use a suitable measuring container to measure out the correct amounts of lacquer and the appropriate hardener. Mixing ratios are alternatively stated gravimetrically, or by weight. A lacquer quantity of 7 kg of PU Filler and a mixing ratio 100 : 7 (gravimetric) accordingly means that 0.49 kg of hardener needs to be weighed and mixed in. 100 parts of lacquer and 7 parts of hardener.

The lacquer needs to be stirred well once hardener has been added. Any hardener has to be worked in especially thoroughly when using our 2C water-based lacquers, since the hardener's solvent content causes 2C HYDRO lacquers to thicken! Only after that can the product's viscosity be adjusted. A range of thinners is available depending on the lacquer and its processing method. It is advisable to use water or optimizer in the case of 2C HYDRO lacquers that are water-dilutable. Special thinners with various different characteristics can be used for other products. The maximum amount of thinner that can be added in % relates to the lacquer/hardener mixture and should be carefully observed, especially when using water-based lacquers. For example, adding 5 % water to a PERFECT-COLOR lacquer/hardener mixture of 5.5 litres would mean adding a maximum of 0.275 litres of water.

The quantity of Hesse aids and additives to be used, such as our metal marking resistance additive, can be specified both as a maximum addition quantity in % and as a mixing ratio. So what are these specified additive quantities actually based on? The amount of aids and additives that can be used is generally determined before the lacquer is hardened; it relates to the pure, standard lacquer.