### 2.10.6.2 Sample preparation and preliminary inspection

*Three sample boards (or, for 2.10.9, two components and one board) identified as samples 1, 2 and 3 are required. It is permitted to use either actual boards or specially produced samples with representative coating and minimum separations. Each sample board shall be representative of the minimum separations used, and coated. Each sample is subjected to the full sequence of manufacturing processes, including soldering and cleaning, to which it is normally subjected during equipment assembly.*

*When visually inspected, the boards shall show no evidence of pinholes or bubbles in the coating or breakthrough of conductive tracks at corners.*

**Table 2N – Minimum separation distances for coated printed boards**

| WORKING VOLTAGE | | | | FUNCTIONAL, BASIC or SUPPLEMENTARY INSULATION | REINFORCED INSULATION |
|---|---|---|---|---|---|
| V r.m.s. or d.c. | | | | mm | mm |
| | | up to and including | 63 | 0,1 | 0,2 |
| Over | 63 | up to and including | 125 | 0,2 | 0,4 |
| Over | 125 | up to and including | 160 | 0,3 | 0,6 |
| Over | 160 | up to and including | 200 | 0,4 | 0,8 |
| Over | 200 | up to and including | 250 | 0,6 | 1,2 |
| Over | 250 | up to and including | 320 | 0,8 | 1,6 |
| Over | 320 | up to and including | 400 | 1,0 | 2,0 |
| Over | 400 | up to and including | 500 | 1,3 | 2,6 |
| Over | 500 | up to and including | 630 | 1,8 | 3,6 |
| Over | 630 | up to and including | 800 | 2,4 | 3,8 |
| Over | 800 | up to and including | 1 000 | 2,8 | 4,0 |
| Over | 1 000 | up to and including | 1 250 | 3,4 | 4,2 |
| Over | 1 250 | up to and including | 1 600 | 4,1 | 4,6 |
| Over | 1 600 | up to and including | 2 000 | 5,0 | 5,0 |
| Over | 2 000 | up to and including | 2 500 | 6,3 | 6,3 |
| Over | 2 500 | up to and including | 3 200 | 8,2 | 8,2 |
| Over | 3 200 | up to and including | 4 000 | 10 | 10 |
| Over | 4 000 | up to and including | 5 000 | 13 | 13 |
| Over | 5 000 | up to and including | 6 300 | 16 | 16 |
| Over | 6 300 | up to and including | 8 000 | 20 | 20 |
| Over | 8 000 | up to and including | 10 000 | 26 | 26 |
| Over | 10 000 | up to and including | 12 500 | 33 | 33 |
| Over | 12 500 | up to and including | 16 000 | 43 | 43 |
| Over | 16 000 | up to and including | 20 000 | 55 | 55 |
| Over | 20 000 | up to and including | 25 000 | 70 | 70 |
| Over | 25 000 | up to and including | 30 000 | 86 | 86 |

For voltages between 2 000 V and 30 000 V linear interpolation is permitted between the nearest two points, the calculated spacing being rounded up to the next higher 0,1 mm increment.