

## PANEL TESTS

|                        |
|------------------------|
| <b>Protocol nr.:</b>   |
| Sample receiving date: |
| Test start date:       |
| Report date:           |

|   |
|---|
| <b>Sample description:</b>                        |
| Melamine paper panels coated in different colours |

### Coating system:

- A) ARF1170/13 (white) + 5% AH1550/00;
- B) ARF0340/40 (Ginepro color) + 10% AH1550/00;
- C) ARF1410/27 (Sabbia color) + 5% AH1550/00;
- D) ARF9000/63 (Quarzo color) + 10% AH1550/00.

The results achieved are as follows:

### UNI EN 2409 (cross-cut)

*Result (2-mm tool): 0 for all systems*

### EXPRESSION OF RESULTS:

*0 - the cut edges are totally intact: none of the squares came off.*

*1- detachment of little coating chips from cut intersections. The area involved is not remarkably greater than 5%*

*2- detachment of the coating along the edges and/or from cut intersections. An area from 5% to 15% is involved*

*3- large pieces of coating came off partially or totally along cut edges and/or the coating partially or totally detached from various points of the cross-cut. An area from 15% to 35% is involved*

*4- large pieces of coating came off along cut edges and/or some coating squares came off partially or totally. An area from 35% and 65% is involved*

*5- any level of detachment that cannot be classified within level 4*

## RESISTANCE TO COLD LIQUIDS (CEN/TS 16209)

### LEVEL B

|                         | Application time | Minimum value | A | B | C | D |
|-------------------------|------------------|---------------|---|---|---|---|
| Acetic Acid (10% w/w)   | 1 h              | 4             | 5 | 5 | 5 | 5 |
| Acetone                 | 10 s             | 4             | 4 | 4 | 4 | 4 |
| Ammonia (10% w/w)       | 1 h              | 4             | 4 | 4 | 4 | 4 |
| Citric Acid (10% w/w)   | 1 h              | 4             | 5 | 5 | 5 | 5 |
| Detergent Solution      | 6 h              | 4             | 5 | 4 | 2 | 4 |
| Coffee                  | 6 h              | 4             | 4 | 4 | 4 | 4 |
| Ethyl Alcohol (48% V/V) | 1 h              | 4             | 3 | 3 | 3 | 3 |
| Paraffin Oil            | 16 h             | 4             | 5 | 5 | 5 | 5 |
| Distilled Water         | 16 h             | 4             | 2 | 4 | 2 | 4 |
| Perspiration, basic     | 1 h              | 4             | 5 | 5 | 5 | 5 |

*Level achieved:*

*EXPRESSION OF RESULTS:*

5- no visible change

4- slight change in gloss level or colour that can be identified under particular view conditions only

3- moderate change in gloss level or colour and/or barely visible ring-shaped or circle mark.

2- marked sign

1- marked sign showing total or partial surface deterioration.

**UNI 9429 (Determination of surface resistance to sudden temperature changes)**

| Parameter -A- | 0 cycles | Cycles n° (optional) | 15 cycles |
|---------------|----------|----------------------|-----------|
| Cracks        | 0        |                      | 0         |
| Sinking       | 0        |                      | -         |
| Haziness      | 0        |                      | 0         |
| Other         |          |                      |           |

| Parameter -B- | 0 cycles | Cycles n° (optional) | 15 cycles |
|---------------|----------|----------------------|-----------|
| Cracks        | 0        |                      | 0         |
| Sinking       | 0        |                      | 1         |
| Haziness      | 0        |                      | 0         |
| Other         |          |                      |           |

| Parameter -C- | 0 cycles | Cycles n° (optional) | 15 cycles |
|---------------|----------|----------------------|-----------|
| Cracks        | 0        |                      | 0         |
| Sinking       | 0        |                      | 1         |
| Haziness      | 0        |                      | 0         |
| Other         |          |                      |           |

| Parameter -D- | 0 cycles | Cycles n° (optional) | 15 cycles |
|---------------|----------|----------------------|-----------|
| Cracks        | 0        |                      | 0         |
| Sinking       | 0        |                      | 1         |
| Haziness      | 0        |                      | 0         |
| Other         |          |                      |           |

*Expression of results:*

| <i>Index</i> | <i>Cracks</i>                                     | <i>Sinking</i>        | <i>Haziness</i>   |
|--------------|---|-----------------------|-------------------|
| <i>0</i>     | <i>No changing</i>                                | <i>No sinking</i>     | <i>No haze</i>    |
| <i>1</i>     | <i>Cracks only visible with 4 x magnification</i> | <i>Slight sinking</i> | <i>Light haze</i> |
| <i>2</i>     | <i>Clearly visible cracks</i>                     | <i>Heavy sinking</i>  | <i>Heavy haze</i> |

**ISO 4211-4 (Impact test)**

| Falling height | Results |
|----------------|---------|
| 25 mm          | 4       |
| 50 mm          | 4       |
| 100 mm         | 4       |
| 150 mm         | 4       |

Note: the 100 mm test is not part of the ISO 4211-4 test but was included as it gives useful information

**EXPRESSION OF RESULTS:**

- 5- no visible change
- 4- No visible breaking but impact point is visible when the light source is near the tested surface.
- 3- Light film fracture, usually one or two circles around the impact.
- 2- Moderate to heavy crack formation, but only around the impact area.
- 1- Heavy crack formation, extended over the impact area and/or flaking of the paint film.