



SPECIFICATIONS FOR A QUALITY LABEL FOR DECORATION OF COATED ALUMINIUM USED IN ARCHITECTURAL APPLICATIONS

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TERMINOLOGY

COATING APPLICATOR: applicator of powder coating materials

DECORATOR: applicator of decorations

DECORATION: a pattern applied to one colour of a powder coating material

DECORATION CLASS: classification of decorations according to weathering performance

DECORATION SYSTEM: combination of a paper or plastic film with a powder (sublimation technology) or of a base coat with a top coat (powder on powder technology)

FILM SUPPLIER: supplier of paper or plastic film used for transferring decorations

GLOSS CATEGORY: classification of gloss finishes into three different gloss levels (matt, semi-matt or semi-gloss, gloss)

QUALIDECO LICENCE: confirmation that a company (decorator, film or powder supplier) operates in accordance with the QUALIDECO Specifications

QUALIDECO APPROVAL: confirmation that a specific supplier's product meets the requirements of the QUALIDECO Specifications



Chapter 1

SCOPE AND PURPOSE OF THE SPECIFICATIONS



1. SCOPE AND PURPOSE OF THE SPECIFICATIONS

Various technologies can be used to produce decorative finishes on products, such as wood effect. The following Specifications cover technologies based on the transfer of images to coated substrates using the sublimation process or on powder on powder application using suitable techniques. Other technologies may be used only if they have been previously approved by the QUALIDECO Committee as specified in Appendix III.

These Specifications do not include process tests because the technology is patented.

The aim of the QUALIDECO Specifications is to establish minimum requirements that decoration plants, materials and decorated products shall meet and to ensure continuous quality control of products so that decorators and – in the case of sublimation technology - powder and film suppliers can be granted a QUALIDECO licence for exterior architectural applications.



Chapter 2

CERTIFICATION PROCEDURE FOR GRANTING A LICENCE TO DECORATORS USING SUBLIMATION TECHNOLOGY



2. CERTIFICATION PROCEDURE FOR GRANTING A LICENCE TO DECORATORS USING SUBLIMATION TECHNOLOGY

Decorations using sublimation technology are obtained by transferring an image from a support (that can be paper or plastic film) to a coated surface with a special process using temperature and/or pressure and/or under vacuum.

The following alternatives are possible to obtain a licence for exterior applications:

- **Alternative 1**

The decorator shall use only film and powders produced by suppliers certified by QUALIDECO according to section 3 and defined by the suppliers in the technical data sheet.

- **Alternative 2**

The decorator shall have all of his own decorations tested and approved by QUALIDECO.

2.1. Preliminary conditions

- a) The company that performs the coating cycle shall hold the QUALICOAT quality label to ensure that the coating is applied under the best conditions and the company has the equipment for the tests.
- b) The base powder coating shall be approved by QUALICOAT for the application in sublimation.

2.2. Work specifications for decorators using sublimation technology (REQUIREMENTS)

2.2.1 Stoving

To create decorated products, the decorator shall have a stoving process that operates with a system to check the metal temperature, under the conditions prescribed by the suppliers in the technical data sheets.

2.2.2 Laboratory

The decorator shall at least be equipped with the following apparatus:

- ◆ specular gloss meter
- ◆ instrument for measuring coating thickness
- ◆ equipment to check metal temperature (for instance thermo labels or temperature recorder).

Each piece of apparatus shall have a data sheet showing the apparatus identification number and calibration checks.



2.2.3 In-house control

The decorator shall monitor the production processes and inspect the decorated products as follows:

• **INCOMING MATERIALS**

The decorator shall keep a register showing all data concerning the material received and to be decorated (date, lot, coating applicator, coating applicator’s licence number, powder supplier, powder approval number, basic colour). An example is shown in Appendix 1.

The coated material shall be delivered by the coating applicator to the decorator with an applicator certificate (for example a copy of the in-house control records relating to the lot). This certificate shall be archived by the decorator.

The maximum time allowed between coating and decoration is two weeks. During this period, the coated material shall be protected from dust and all kinds of contamination.

• **COATED PRODUCTS**

a) **Gloss test (EN ISO 2813)**

Gloss values shall be provided by the coating applicator for every lot of coated products (one lot represents a customer's complete order in one colour or that part of the order which is in the plant).

If the gloss cannot be measured with apparatus, a visual assessment shall be performed.

The results of these analyses shall be entered in some record (register) readily accessible to the inspector, showing the nominal values and maximum values not to be exceeded.

b) **Coating thickness test (EN ISO 2360)**

The coating thickness measurements shall be provided by the coating applicator on at least as many samples as specified below:

Lot size	Number of samples (random selection)	Acceptance limit for rejected samples
1 – 10	All	0
11 – 200	10	1
201 – 300	15	1
301 – 500	20	2
501 – 800	30	3
801 – 1,300	40	3
1,301 – 3,200	55	4
3,201 – 8,000	75	6
8,001 – 22,000	115	8
22,001– 110,000	150	11

The results of these measurements (minimum and maximum values) shall be entered and retained on some record readily accessible to the inspector.



- **DECORATED PRODUCTS**

- **Appearance**

- Appearance shall be evaluated visually on significant surfaces of the decorated products by comparison with a reference sample or as agreed with the customer.

- The **significant surface** shall be defined by the customer and is that part of the total surface which is essential to the appearance and serviceability of the item. Edges, deep recesses and secondary surfaces are not included in the significant surface.

- The coating on the significant surface shall not have any scratches through to the base metal. When the coating on the significant surface is viewed at an oblique angle of about 60° to the upper surface, none of the defects listed below shall be visible from a distance of 3 metres: excessive roughness, runs, blisters, inclusions, craters, dull spots, pinholes, pits, scratches or any other unacceptable flaws.

- When viewed on-site, these criteria shall be fulfilled as follows:

- for parts used outdoors: viewed at a distance of 5 m
 - for parts used indoors: viewed at a distance of 3 m

- **STOVING CONDITIONS**

- The stoving conditions shall be monitored to ensure compliance with the film supplier's data sheet by measuring the temperature at least once a day on one point of the section surface and at least once a week at 3 different points in the oven to ensure uniform stoving.

2.3. Testing and samples required for granting a licence

An inspection of the decorator's plant shall be carried out and laboratory tests shall be performed as follows to ensure that the decorations meet the requirements.

- If the decorator uses **only alternative 1**, only two decorated samples selected by the inspector during his visit need to be tested.
- If the decorator uses **only alternative 2**, all of the decorations for exterior architectural applications shall be tested and approved.
- If the decorator uses **both alternatives**, two decorated samples corresponding to alternative 1 and all decorations corresponding to alternative 2 shall be tested.

2.3.1 Inspection

The inspection shall include the following aspects:

a) STOVING PROCESS

As specified in § 2.2.1 and 2.2.3.

b) LABORATORY EQUIPMENT

As specified in § 2.2.2 to ensure that the equipment is available and functional.



c) DECORATED PRODUCTS

The inspector shall perform the following tests on the decorated parts using his own equipment:

- appearance
- gloss
- coating thickness.

d) IN-HOUSE CONTROL AND REGISTERS

The inspector shall check that in-house control has been carried out in accordance with § 2.2.3 and that registers are correctly maintained.

2.3.2 Tests

2.3.2.1 Laboratory tests

Laboratory tests shall be performed on decorated samples taken from a production lot for exterior architectural applications. Corrosion tests shall be performed on single samples.

The tests and prescribed limits are as follows:

a) Gloss

EN ISO 2813 - using incident light at 60° to the normal

Note: if the significant surface is too small or unsuitable for the gloss to be measured with the gloss meter, the gloss should be compared visually with the reference sample (from the same viewing angle).

REQUIREMENTS:

Gloss category	Gloss range	Acceptable variation
1 (matt)	0 - 30	+/- 5 units
2 (semi-matt or semi-gloss)	31 - 70	+/- 7 units
3 (gloss)	71 - 100	+/- 10 units

b) Coating thickness

EN ISO 2360

The thickness of the organic coating on each part to be tested shall be measured on the significant surface at not less than five measuring areas (approx. 2 cm²) with 3 to 5 separate readings taken at each area. The average of the separate readings taken at one measuring area gives a measured value to be recorded in the inspection reports.

REQUIREMENTS:

None of the measured values may be less than 80% of the specified minimum value (60 µm), otherwise the thickness test as a whole will be considered unsatisfactory.



c) Resistance to humid atmospheres containing sulphur dioxide

EN ISO 3231 (0.2 l SO₂ - 24 cycles)

A cross-cut incision with a width of 1 mm shall be made to cut the organic coating down to the metal.

REQUIREMENTS:

No infiltration exceeding 1 mm on both sides of the scratch, and no colour change or blistering in excess of 2 (S2) according to ISO 4628-2.

d) Accelerated weathering test

EN ISO 11341

Luminous intensity: 550 ± 20 W/m² (290 - 800 nm)

Black standard temperature: 65 ± 5°C

Demineralised water: maximum 10 µS

Special UV filter (290 nm)

Cycles of 18 minutes in a wet medium and 102 minutes in a dry medium.

Testing Time:

CLASS 1	CLASS 2 (Appendix II)
1000 hours	2000 hours, with gloss and colour change measured every 500 hours.

After exposure, the test panels shall be rinsed with demineralised water and checked for:

Gloss variation: EN ISO 2813

60° angle of incidence

Colour change: ΔE CIELAB formula according to ISO 7724/3, measurement including specular reflection and grey scale (ISO 105-A02).

3 colour measurements shall be made on the test panels before and after the accelerated weathering test.

REQUIREMENTS:

Gloss variation

CLASS 1	CLASS 2 (as defined in Appendix II)
The loss of gloss after the accelerated weathering test shall not be greater than 50% of the original value.	<ul style="list-style-type: none"> • After 1000 hours, 90% residual gloss • After 2000 hours <ul style="list-style-type: none"> 50% residual gloss for category 1 70% residual gloss for categories 2 and 3



Colour change:

Even though the colour is not uniform, the colour change can still be measured with instrumental apparatus. In this case, the provisional limit shall be Delta E = 2 for a light base and 3 for a dark base.

In all cases, the final evaluation shall be based on a visual inspection using normal corrected vision, with a maximum value of 4 on the grey scale (ISO 105-A02).

2.3.2.2 Natural weathering test¹

Exposure in Florida according to ISO 2810

Samples shall be exposed at an angle of 5° to the horizontal and facing south towards the equator for 1 year. The test shall start in April.

REQUIREMENTS:

For the time being, the acceptable limits are the same as those stipulated for the accelerated weathering test.

2.3.3 Conformity assessment for granting a licence

The inspector shall submit the inspection report to the General Licensee.

Under the supervision of QUALIDECO, the General Licensee shall follow the procedure below:

- If the results of the laboratory tests and inspection meet the requirements, a licence to use the QUALIDECO quality label shall be granted to the decorator.
- If the results of the laboratory tests or inspection do not meet the requirements, the applicant shall be informed that the licence to use the quality label cannot be granted for the time being, stating the reasons. A new application may be made only when the company has given notification that it has rectified the deficiencies recorded.

2.4. Renewing a QUALIDECO licence granted to decorators using sublimation technology

The renewal of a QUALIDECO licence is based on the inspection results and the results of the tests carried out on decorations selected by the inspectors.

2.4.1 Inspection

After a plant has been granted a QUALIDECO licence, it shall be inspected once a year according to § 2.3.1. During the inspection, two samples of two decorations shall be selected by the inspector for testing.

Marketing materials shall also be examined in order to check that the QUALIDECO licence is used for approved decorations only.

¹ For class 2 decorations see Appendix II.



2.4.2 Tests

2.4.2.1 Laboratory tests

The tests are the same as for granting a QUALIDECO licence (§ 2.3.2.1):

- gloss
- coating thickness
- resistance to humid atmospheres
- accelerated weathering test.

2.4.2.2 Natural weathering (Florida)

See § 2.3.2.2

2.4.3 Conformity assessment for renewing a licence

The inspector shall submit the inspection report to the General Licensee or QUALIDECO for evaluation.

Under the supervision of QUALIDECO, the General Licensee shall follow the procedure below (see also table 1 below):

- If the results of the inspection and laboratory tests meet the requirements, authorisation to use the QUALIDECO quality label shall continue.
- If the results of the inspection do not meet the requirements, another inspection shall be made within one month (allowing for holiday periods) after the decorator has received notification of an unsatisfactory result from the General Licensee and/or QUALIDECO. In the meantime, the licensee shall rectify nonconformities and inform the General Licensee or QUALIDECO immediately. If the second inspection again produces unsatisfactory results, the licence to use the quality label shall be withdrawn immediately.
- If the results of the laboratory tests on one or two samples do not meet the requirements, the tests shall be repeated on new decorated samples prepared by the laboratory using the same powder and film taken during the inspection.
 - If the results of these repeat laboratory tests are satisfactory, the inspection shall be considered negative² and the decorator shall be requested to check the production process. Another inspection shall be made within one month (allowing for holiday periods) after the decorator has received notification of an unsatisfactory result from the General Licensee and/or QUALIDECO. In the meantime, the licensee shall rectify nonconformities and inform the General Licensee or QUALIDECO immediately. If the second inspection again produces unsatisfactory results, the licence to use the quality label shall be withdrawn immediately.
 - If the results of these repeat laboratory tests are again unsatisfactory, the decorator shall no longer be allowed to use the decoration systems that failed, but the licence shall be renewed. In addition, if these decoration systems are produced under alternative 1, action shall be taken after consultation with the supplier(s).

² If the results of the laboratory tests are satisfactory, it means that the plant conditions were not applied properly and the inspection needs to be repeated.



		INSPECTION	LABORATORY TESTS	ASSESSMENT			
Are the requirements met?	YES	YES	SATIS-FACTORY	▶ Licence renewed			
	NO	YES	UNSATIS-FACTORY	Repeat inspection	Inspection satisfactory	▶ Licence renewed	
					Inspection unsatisfactory	▶ Licence withdrawn	
	YES	NO	UNSATIS-FACTORY	Repeat laboratory tests on the decorations that failed (*)	Tests unsatisfactory	▶ Licence renewed ▶ Approval(s) cancelled (***)	
					Tests satisfactory (**)	Repeat inspection	Inspection satisfactory
					Inspection unsatisfactory		▶ Licence withdrawn

(*) The tests shall be repeated on decorated samples prepared in the laboratory following the supplier's instructions.

(**) If the results of the laboratory tests are satisfactory, it means that the plant conditions were not applied properly and the inspection needs to be repeated.

(***) The decorator shall no longer be allowed to use the decoration systems that failed. In addition, if these decoration systems are produced under alternative 1, action shall be taken after consultation with the supplier.

Table 1 – Renewal of licences granted to decorators using sublimation.



Chapter 3

CERTIFICATION PROCEDURE FOR GRANTING A LICENCE TO FILM AND POWDER SUPPLIERS (APPLIES TO SUBLIMATION TECHNOLOGY ONLY)



3. CERTIFICATION PROCEDURE FOR GRANTING A LICENCE TO FILM AND POWDER SUPPLIERS (APPLIES TO SUBLIMATION TECHNOLOGY ONLY)

Certification of suppliers implies that film suppliers shall only use approved coating materials from licensed powder suppliers and that powder suppliers shall only use approved films from licensed film suppliers.

3.1. Certification procedure for film suppliers

3.1.1 Work specifications for film suppliers (REQUIREMENTS)

3.1.1.1 Traceability

The film supplier shall have a procedure for monitoring and documenting all manufacturing steps in order to ensure traceability in the production chain. The results of these measures shall be entered in some record (register) readily accessible to the inspector.

3.1.1.2 Laboratory and in-house control

In this context, the finished product is understood to be the film used for sublimation.

The film shall be tested after being applied to panels coated with a powder approved for QUALIDECO applications.

The film supplier shall have laboratory facilities which are separate from the production facilities. This laboratory shall have all the apparatus and chemicals necessary for testing the manufacturing process and finished products.

It shall at least be equipped with the following apparatus and reference material:

- ◆ a specular gloss meter
- ◆ an instrument for measuring coating thickness
- ◆ a recorder for stoving temperature and time with four different measuring points
- ◆ apparatus for testing accelerated weathering resistance and for measuring colour change and gloss retention
- ◆ an application booth
- ◆ transfer equipment
- ◆ a grey scale reference (ISO 105-A02).

Each piece of apparatus shall have a data sheet showing the apparatus identification number and calibration checks.



The film supplier shall use the following procedure to monitor his manufacturing process and test his finished products:

- A sample of each roll (every 1000 metres) shall be printed on the coated surface to check the visual appearance. The results shall be recorded and at least two samples, taken from the beginning and end of each roll, shall be stored.
- The film supplier shall provide the decorator with a **system data sheet** for the decoration approved for exterior applications (in particular indicating maximum temperatures and times and the reference to the film and powder codes). A copy shall be available to the inspector during his visit.
- The film supplier shall test every single new decoration in his laboratory. The record of the results obtained shall be shown to the QUALIDECO inspector upon request.

3.1.2 Granting a licence to a film supplier

A licence shall be granted subject to the following conditions:

1. The film supplier shall submit to QUALIDECO a written application identifying the decoration system(s) (film + powder) to be approved.
2. The plant shall have a laboratory equipped with the minimum apparatus (see § 3.1.1.2).
3. If the request is accepted by QUALIDECO, the film supplier shall send a roll of film for the following **4 basic decorations** to a QUALIDECO laboratory:
 - WALNUT and OAK applied on a brown base
 - PINE and OAK applied on a beige base.

The names and references of the powder coating materials used shall be specified.

4. Samples of film shall be taken from that part of the roll where the pattern and printing marks appear.
5. A QUALIDECO laboratory shall apply the film and perform the following tests:
 - accelerated weathering test
 - resistance to humid atmospheres containing sulphur dioxide
 - natural weathering test in Florida.
6. An inspection of the film supplier's facility shall be carried out to check that its in-house control meets the requirements specified in § 3.1.1.2.

CONFORMITY ASSESSMENT

Under the supervision of QUALIDECO, the General Licensee shall follow the procedure below:

- If the results of the laboratory tests and inspection meet the requirements, a licence to use the QUALIDECO quality label shall be granted for the decoration systems tested, which shall be considered approved.
- If the results of the laboratory tests or inspection do not meet the requirements, the applicant shall be informed that the licence to use the quality label cannot be granted for the time being, stating the reasons. A new application may be made only when the company has given notification that it has rectified the deficiencies recorded.



3.1.3 Renewing a licence granted to a film supplier

After a film supplier has been granted a licence to use the quality label, his plant shall be inspected once a year.

The routine inspection shall include the following aspects:

- a) **LABORATORY EQUIPMENT** according to § 3.1.1.2
- b) **DECORATED SAMPLES** tested during in-house control
- c) **IN-HOUSE CONTROL AND REGISTERS**
- d) **SAMPLING** - Two different decorations under the same approval and indicated by the supplier in the technical data sheet shall be selected by the inspector for testing (see 3.1.2).

CONFORMITY ASSESSMENT

The inspector shall submit the inspection report to the General Licensee or QUALIDECO for evaluation.

Under the supervision of QUALIDECO, the General Licensee shall follow the procedure below (see also table 2):

- If the results of the inspection (including laboratory test results) meet the requirements, authorisation to use the QUALIDECO quality label shall continue.
- If the results of the inspection do not meet the requirements, another inspection shall be made within one month (allowing for holiday periods) after the film supplier has received notification of an unsatisfactory result from the General Licensee and/or QUALIDECO. In the meantime, the licensee shall rectify nonconformities and inform the General Licensee or QUALIDECO immediately. If the second inspection again produces unsatisfactory results, the licence to use the quality label shall be withdrawn immediately.
- If the results of the laboratory tests on one sample do not meet the requirements, a new sample of the decoration system shall be tested. If the results of these repeat laboratory tests are again unsatisfactory, the approval shall be withdrawn for the decoration that failed.
- If the results of the laboratory tests on both samples do not meet the requirements, the tests shall be repeated on new decorated samples prepared by the laboratory using the same film taken during the inspection. If the results of these repeat laboratory tests are again unsatisfactory for both samples, the approval shall be cancelled. If the results are unsatisfactory for one sample, the approval shall be withdrawn for the decoration that failed.



	INSPECTION	LABORATORY TESTS	ASSESSMENT			
	Are the requirements met?	YES	YES	SATIS-FACTORY	► Licence renewed	
NO		YES	UNSATIS-FACTORY	Repeat inspection	Inspection satisfactory	► Licence renewed
					Inspection unsatisfactory	► Licence withdrawn
YES		NO	UNSATIS-FACTORY 1 sample	Repeat tests on a new sample of the decoration that failed(*)	Tests satisfactory	► Licence renewed
					Tests unsatisfactory	► Licence renewed Approval no longer valid for the decoration that failed
			UNSATIS-FACTORY 2 samples	Repeat tests on new samples of the decorations that failed (*)	Both samples satisfactory	► Licence renewed
					One sample unsatisfactory	Licence renewed Approval no longer valid for the decoration that failed
					Both samples unsatisfactory	Licence renewed Approval cancelled

(*) The tests shall be repeated on decorated samples prepared in the laboratory using the same film taken during the inspection.

Table 2 – Renewal of licences granted to film suppliers

3.1.4 Approval of new decoration systems

After a film supplier has been granted a licence to use the quality label, new decoration systems shall be approved subject to the following conditions:

1. The film supplier shall submit to QUALIDECO a written application identifying the decoration system(s) (film + powder) to be approved.
2. When the request is registered by QUALIDECO, the film supplier shall send a roll of film for the following **four basic decorations** to a QUALIDECO laboratory:
 - WALNUT and OAK applied on a brown base
 - PINE and OAK applied on a beige base.

The names and references of the powder coating materials used shall be specified.

3. Samples of film shall be taken from that part of the roll where the pattern and printing marks appear.
4. A QUALIDECO laboratory shall apply the film and perform the following tests:
 - accelerated weathering test
 - resistance to humid atmospheres containing sulphur dioxide
 - natural weathering test in Florida.

CONFORMITY ASSESSMENT

- If the results of the laboratory tests meet the requirements, the new decoration system(s) shall be added to the licence.



- If the results of one or more laboratory tests do not meet the requirements, the laboratory tests shall be repeated. If the results of the laboratory tests or inspection do not meet the requirements, the applicant shall be informed that the new decoration system(s) cannot be approved for the time being, stating the reasons.

3.2. Certification procedure for powder suppliers

3.2.1 Work specifications for powder suppliers (REQUIREMENTS)

3.2.1.1 Traceability

The powder supplier shall have a procedure for monitoring and documenting all manufacturing steps in order to ensure traceability in the production chain. The results of these measures shall be entered in some record (register) readily accessible to the inspector.

3.2.1.2 Laboratory and in-house control

The powder supplier shall have laboratory facilities which are separate from the production facilities. This laboratory shall have all the apparatus and chemicals necessary for testing the manufacturing process and decorated products.

It shall at least be equipped with the following apparatus and reference material:

- ◆ a specular gloss meter
- ◆ an instrument for measuring coating thickness
- ◆ apparatus for the mechanical tests
- ◆ a recorder for stoving temperature and time with four different measuring points
- ◆ apparatus for testing accelerated weathering resistance and for measuring colour change and gloss retention
- ◆ an application booth
- ◆ transfer equipment
- ◆ a grey scale reference (ISO 105-A02)

Each piece of apparatus shall have a data sheet showing the apparatus identification number and calibration checks.

The powder supplier shall use the following procedure to monitor his manufacturing process and test his coated and decorated products:

- Each production lot shall be tested at least once and a coated panel shall be prepared to check the visual appearance (gloss and colour) and mechanical properties every 100 to 300 kg depending on the lot size. The results shall be recorded in a register.
- The powder supplier shall provide the decorator with a system data sheet. A copy shall be available to the inspector during his visit.
- In his laboratory, the powder supplier shall test samples coated with the different approved coating materials and decorated with the film used for all decoration systems indicated in the technical data sheet. The record of the results obtained shall be shown to the QUALIDECO inspector.



3.2.2 Granting a licence to a powder supplier

A licence shall be granted subject to the following conditions:

1. The powder supplier shall submit a written application identifying the decoration system(s) (film + powder) to be approved.
2. The plant shall have a laboratory equipped with the minimum apparatus (see § 3.2.1.2).
3. The basic colours to be tested are:
 - BROWN
 - BEIGE.
4. A QUALIDECO laboratory shall apply the film for which an approval is requested and perform the following tests:
 - accelerated weathering test
 - resistance to humid atmospheres containing sulphur dioxide
 - natural weathering test in Florida.
5. An inspection of the powder supplier's facility shall be carried out to check that its in-house control meets the requirements specified in § 3.2.1.2.

CONFORMITY ASSESSMENT

Under the supervision of QUALIDECO, the General Licensee shall follow the procedure below:

- If the results of the laboratory tests and inspection meet the requirements, a licence to use the QUALIDECO quality label shall be granted for the decoration systems tested, which shall be considered approved.
- If the results of the laboratory tests or inspection do not meet the requirements, the applicant shall be informed that the licence to use the quality label cannot be granted for the time being, stating the reasons. A new application may be made only when the company has given notification that it has rectified the deficiencies recorded.

3.2.3 Renewing a licence granted to a powder supplier

After a powder supplier has been granted a licence to use the quality label, his plant shall be inspected once a year.

The routine inspection shall include the following aspects:

- a) **LABORATORY EQUIPMENT** according to 3.2.3
- b) **DECORATED SAMPLES** tested during in-house control
- c) **IN-HOUSE CONTROL AND REGISTERS**
- d) **SAMPLING OF THE APPROVED SYSTEM(S) USED FOR DECORATION** to be checked using the same laboratory tests as for granting a licence in order to verify that it/they meet(s) the requirements.



CONFORMITY ASSESSMENT

The inspector shall submit the inspection report to the General Licensee or QUALIDECO for evaluation.

Under the supervision of QUALIDECO, the General Licensee shall follow the procedure below (see also table 3 below):

- If the results of the inspection (including laboratory test results) meet the requirements, authorisation to use the QUALIDECO quality label shall continue.
- If the results of the inspection do not meet the requirements, another inspection shall be made within one month (allowing for holiday periods) after the powder supplier has received notification of an unsatisfactory result from the General Licensee and/or QUALIDECO. In the meantime, the licensee shall rectify nonconformities and inform the General Licensee or QUALIDECO immediately. If the second inspection again produces unsatisfactory results, the licence to use the quality label shall be withdrawn immediately.
- If the results of the laboratory tests on one sample do not meet the requirements, a new sample of the decoration system shall be tested. If the results of these repeat laboratory tests are again unsatisfactory, the approval shall be withdrawn for the decoration that failed.
- If the results of the laboratory tests on both samples do not meet the requirements, the tests shall be repeated on new decorated samples prepared by the laboratory using the same powder taken during the inspection. If the results of these repeat laboratory tests are again unsatisfactory for both samples, the approval shall be cancelled. If the results are unsatisfactory for one sample, the approval shall be withdrawn for the decoration that failed.

		INSPECTION	LABORATORY TESTS	ASSESSMENT		
Are the requirements met?	YES	YES	SATIS-FACTORY	▶ Licence renewed		
	NO	YES	UNSATIS-FACTORY	Repeat inspection	Inspection satisfactory	▶ Licence renewed
					Inspection unsatisfactory	▶ Licence withdrawn
	YES	NO	UNSATIS-FACTORY 1 sample	Repeat tests on a new sample of the decoration that failed(*)	Tests satisfactory	▶ Licence renewed
					Tests unsatisfactory	▶ Licence renewed Approval no longer valid for the decoration that failed
			UNSATIS-FACTORY 2 samples	Repeat tests on new samples of the decorations that failed (*)	Both samples satisfactory	▶ Licence renewed
					One sample unsatisfactory	Licence renewed Approval no longer valid for the decoration that failed
	Both samples unsatisfactory	Licence renewed Approval cancelled				

(*) The tests shall be repeated on decorated samples prepared in the laboratory using the same powder taken during the inspection.

Table 3 – Renewal of licences granted to powder suppliers



3.2.4 Approval of new decoration systems

After a powder supplier has been granted a licence to use the quality label, new decoration systems shall be approved subject to the following conditions:

1. The powder supplier shall submit to QUALIDECO a written application identifying the decoration system(s) (film + powder) to be approved.
2. The basic colours to be tested are:
 - BROWN
 - BEIGE
3. A QUALIDECO laboratory shall apply the film for which an approval is requested and perform the following tests:
 - accelerated weathering test
 - resistance to humid atmospheres containing sulphur dioxide
 - natural weathering test in Florida.

CONFORMITY ASSESSMENT

- If the results of the laboratory tests meet the requirements, the new decoration system(s) shall be added to the licence.
- If the results of one or more laboratory tests do not meet the requirements, the laboratory tests shall be repeated. If the results of the laboratory tests or inspection do not meet the requirements, the applicant shall be informed that the new decoration system(s) cannot be approved for the time being, stating the reasons.



Chapter 4

CERTIFICATION PROCEDURE FOR GRANTING A LICENCE TO DECORATORS USING POWDER ON POWDER TECHNOLOGY



4. CERTIFICATION PROCEDURE FOR GRANTING A LICENCE TO DECORATORS USING POWDER ON POWDER TECHNOLOGY

This effect is obtained in two steps: the main coating (A) is first applied and partially cured. Then in a second step, the final coat (B) is applied on top of the base coat using a special filter and following a specific pattern. The system is then fully cured.

The main coating and top coating shall be made by the same manufacturer.

The pre-curing and curing conditions shall be defined by the powder suppliers, and appropriate technical data sheets shall be available in the decorator's plant.

4.1. Preliminary conditions

- a) The company that performs the coating cycle shall hold the QUALICOAT quality label to ensure that the coating is applied under the best conditions and the company has the equipment for the tests.
- b) The powder coating materials shall be approved
 - by QUALIDECO for powder on powder decoration according to § 5.1.1 (DECO-P).
 - and/or by QUALICOAT for the extension for decoration using powder on powder technology according to § 5.1.3.
- c) The decorations shall be applied at the same production site.

4.2. Work specifications for decorators using powder on powder technology (REQUIREMENTS)

4.2.1 Laboratory

The decorator shall at least be equipped with the following apparatus:

- ◆ specular gloss meter
- ◆ instrument for measuring coating thickness
- ◆ equipment to check metal temperature (temperature recorder).

Each piece of apparatus shall have a data sheet showing the apparatus identification number and calibration checks.



4.2.2 In-house control

The decorator shall monitor the production processes and inspect the decorated products as follows:

- **INCOMING MATERIALS**

The decorator shall keep a register showing all data concerning the material received and to be decorated (date, lot, coating applicator, coating applicator’s licence number, powder supplier, powder approval number, basic colour). An example is shown in Appendix 1.

- **DECORATED PRODUCTS.**

- a) **Gloss test (EN ISO 2813)**

The gloss shall be measured for every lot of decorated products (one lot represents a customer's complete order in one colour or that part of the order which is in the plant).

If the gloss cannot be measured with apparatus, a visual assessment shall be performed by comparing with reference samples agreed with the customer.

The results of these analyses shall be entered in some record (register) readily accessible to the inspector, showing the nominal values and maximum values not to be exceeded.

- b) **Coating thickness test (EN ISO 2360)**

The coating thickness shall be measured on at least as many samples as specified below:

Lot size	Number of samples (random selection)	Acceptance limit for rejected samples
1 – 10	All	0
11 – 200	10	1
201 – 300	15	1
301 – 500	20	2
501 – 800	30	3
801 – 1,300	40	3
1,301 – 3,200	55	4
3,201 – 8,000	75	6
8,001 – 22,000	115	8
22,001– 110,000	150	11

The results of these measurements (minimum and maximum values) shall be entered and retained on some record readily accessible to the inspector.

- **STOVING CONDITIONS**

Pre-curing and curing conditions shall be monitored to ensure compliance with the supplier’s data sheet by measuring the temperature at least once a day.



4.3. Granting a QUALIDECO licence to decorators using powder on powder technology

4.3.1 Inspection

Provided that the company fulfils all preliminary conditions and a written application has been submitted to QUALIDECO, an inspection for granting a licence shall be carried out as follows:

a) STOVING PROCESS

b) LABORATORY EQUIPMENT

c) DECORATED PRODUCTS

The inspector shall perform the following tests on the decorated parts using his own equipment:

- appearance
- gloss
- coating thickness.

d) IN-HOUSE CONTROL AND REGISTERS

The inspector shall check that in-house control has been carried out in accordance with § 4.2.2 and that registers are correctly maintained.

4.3.2 Tests

4.3.2.1 Laboratory tests

Laboratory tests shall be performed on samples taken from a production lot for exterior architectural applications. Corrosion tests shall be performed on single samples.

The tests and prescribed limits are as follows:

a) Gloss

EN ISO 2813 - using incident light at 60° to the normal

Note: if the significant surface is too small or unsuitable for the gloss to be measured with the gloss meter, the gloss should be compared visually with the reference sample (from the same viewing angle).

REQUIREMENTS:

Gloss category	Gloss range	Acceptable variation
1 (matt)	0 - 30	+/- 5 units
2 (semi-matt or semi-gloss)	31 - 70	+/- 7 units
3 (gloss)	71 - 100	+/- 10 units

b) Coating thickness

EN ISO 2360

The thickness of the organic coating on each part to be tested shall be measured on the significant surface at not less than five measuring areas (approx.1 cm²) with 3 to 5 separate readings taken at each area. The average of the separate readings taken at one measuring area gives a measured value to be recorded in the inspection reports.



REQUIREMENTS:

None of the measured values may be less than 80% of the specified minimum value (60 µm), otherwise the thickness test as a whole will be considered unsatisfactory.

c) Resistance to humid atmospheres containing sulphur dioxide

EN ISO 3231 (0.2 l SO₂ - 24 cycles)

A cross-cut incision with a width of 1 mm shall be made to cut the organic coating down to the metal.

REQUIREMENTS:

No infiltration exceeding 1 mm on both sides of the scratch, and no colour change or blistering in excess of 2 (S2) according to ISO 4628-2.

d) Resistance to boiling water

Method 1 with boiling water:

2 hours immersion in boiling demineralised water (maximum 10 µS at 20°C). Remove the test panel and allow it to cool down to room temperature. Apply an adhesive tape to the surface, ensuring that no air is trapped. After one minute, remove the tape at an angle of 45° with a sharp even pull.

Method 2 with a pressure cooker:

Add demineralised water (maximum 10 µS at 20°C) to a pressure cooker with an internal diameter of about 200 mm to a depth of 25 mm and place a test panel measuring 50 mm in it.

Place the lid in position and heat the pressure cooker until steam escapes from the valve. The weighted needle valve shall be adjusted to produce an internal pressure of 100 +/- 10 kPA (1 bar). Continue heating for 1 hour, timing from the moment when steam first escapes from the valve. Cool the pressure cooker, remove the sample and allow it to cool down to room temperature.

Apply an adhesive tape (see section 2.4) to the surface, ensuring that no air is trapped. After one minute, remove the tape at any angle of 45° with a sharp even pull.

REQUIREMENTS:

No blistering in excess of 2 (S2) according to ISO 4628-2. There shall not be any defects or detachment. Some colour change is acceptable.

e) Accelerated weathering test

EN ISO 11341

Luminous intensity: 550 ± 20 W/m² (290 - 800 nm)

Black standard temperature: 65 ± 5°C

Demineralised water: maximum 10 µS

Special UV filter (290 nm)

Cycles of 18 minutes in a wet medium and 102 minutes in a dry medium.

Testing Time: 1000 hours

After exposure, the test panels shall be rinsed with demineralised water and checked for:

Gloss variation: EN ISO 2813

60° angle of incidence



Colour change: ΔE CIELAB formula according to ISO 7724/3, measurement including specular reflection.

3 colour measurements shall be made on the test panels before and after the accelerated weathering test.

REQUIREMENTS:

Gloss variation:

The loss of gloss after the accelerated weathering test shall not be greater than 50% of the original value.

Colour change:

Even though the colour is not uniform, the colour change can still be measured with instrumental apparatus. In this case, the provisional limit shall be Delta E = 2 for a light base and 3 for a dark base.

In all cases, the final evaluation shall be based on a visual inspection using normal corrected vision, with a maximum value of 4 on the grey scale (ISO 105-A02).

4.3.2.2 Natural weathering test

Exposure in Florida according to ISO 2810.

The test shall start in April.

Samples shall be exposed at an angle of 5° to the horizontal and facing south towards the equator for 1 year.

REQUIREMENTS:

For the time being, the acceptable limits are the same as those stipulated for the accelerated weathering test.

4.3.3 Conformity assessment for granting a licence

The inspector shall submit the inspection report to the General Licensee.

Under the supervision of QUALIDECO, the General Licensee shall follow the procedure below:

- If the results of the laboratory tests and inspection meet the requirements, a licence to use the QUALIDECO quality label shall be granted to the decorator.
- If the results of the laboratory tests or inspection do not meet the requirements, the applicant shall be informed that the licence to use the quality label cannot be granted for the time being, stating reasons. A new application may be made only when the company has given notification that it has rectified the deficiencies recorded.



4.4. Renewing a QUALIDECO licence granted to decorators using powder on powder technology

4.4.1 Inspection

After a plant has been granted a QUALIDECO licence, it shall be inspected once a year.

Marketing materials shall also be examined in order to check that the QUALIDECO licence is used for approved decorations only.

4.4.2 Tests

Every year, three decorations shall be selected by the inspector during his visit and be tested in a QUALIDECO laboratory.

The tests are the same as for granting a licence (§ 4.3.2).

4.4.3 Conformity assessment for renewing a licence

The inspector shall submit the INSPECTION report to the General Licensee or QUALIDECO for evaluation.

Under the supervision of QUALIDECO, the General Licensee shall follow the procedure below (see also table 4 below):

- If the results of the inspection (including laboratory test results) meet the requirements, authorisation to use the QUALIDECO quality label shall continue.
- If the results of the inspection do not meet the requirements, another inspection shall be made within one month (allowing for holiday periods) after the decorator has received notification of an unsatisfactory result from the General Licensee and/or QUALIDECO. In the meantime, the licensee shall rectify nonconformities and inform the General Licensee or QUALIDECO immediately. If the second inspection again produces unsatisfactory results, the licence to use the quality label shall be withdrawn immediately.
- If the results of the laboratory tests on both samples do not meet the requirements, the tests shall be repeated on decorated samples prepared by the laboratory using the same powders taken during the inspection. If the results of these repeat laboratory tests are again unsatisfactory, the inspection shall be repeated and two other samples shall be selected. If the laboratory tests are again unsatisfactory for one sample, the licence shall be withdrawn.
- If the results of laboratory tests on one sample do not meet the requirements, a new sample of the same decoration selected by the inspector shall be tested. If the results of these repeat laboratory tests are again unsatisfactory, the approval to use the quality label shall be withdrawn for the decoration.



	INSPECTION	LABORATORY TESTS	ASSESSMENT					
	Are the requirements met?	YES	YES	SATIS-FACTORY	► Licence renewed			
NO		YES	UNSATIS-FACTORY	Repeat inspection	Inspection satisfactory	► Licence renewed		
					Inspection unsatisfactory	► Licence withdrawn		
YES		NO	UNSATIS-FACTORY 1 sample	Repeat tests on a new sample of the decoration that failed(*)	Tests satisfactory	► Licence renewed		
					Tests unsatisfactory	► Licence renewed Approval no longer valid for the decoration that failed		
			UNSATIS-FACTORY 2 samples	Repeat tests on new samples of the decorations that failed (*)	Tests satisfactory	► Licence renewed		
					Tests unsatisfactory	Repeat inspection and repeat tests (*)	Both samples satisfactory	► Licence renewed
One sample unsatisfactory		► Licence withdrawn						

(*) The tests shall be repeated on decorated samples and on samples coated with the base and top colours separately that have been prepared in the laboratory.

Table 4 – Renewal of licences granted to decorators using powder on powder technology



Chapter 5

APPROVALS OF DECORATION SYSTEMS

(APPLIES TO POWDER ON POWDER TECHNOLOGY ONLY)



5. APPROVALS OF DECORATION SYSTEMS (APPLIES TO POWDER ON POWDER TECHNOLOGY ONLY)

5.1. Granting of an approval

5.1.1 QUALIDECO approval (DECO-Pxxx)

If the main coating and top coating have different QUALICOAT approvals (P-Number), the powder supplier shall submit 3 samples of the base coat and 3 samples of the top coat to obtain the following decorations defined by QUALIDECO: **PINE, CHERRY, OAK**.

An approval shall be granted if all the following tests are satisfactory:

5.1.2 Tests

5.1.2.1 Laboratory tests

The following tests shall be carried out by a QUALIDECO approved laboratory:

a) Resistance to humid atmospheres containing sulphur dioxide

EN ISO 3231 (0.2 l SO₂ - 24 cycles)

A cross-cut incision with a width of 1 mm shall be made to cut the organic coating down to the metal.

REQUIREMENTS:

No infiltration exceeding 1 mm on both sides of the scratch, and no colour change or blistering in excess of 2 (S2) according to ISO 4628-2.

b) Resistance to boiling water

Method 1 with boiling water:

2 hours immersion in boiling demineralised water (maximum 10 µS at 20°C). Remove the test panel and allow it to cool down to room temperature. Apply an adhesive tape to the surface, ensuring that no air is trapped. After one minute, remove the tape at an angle of 45° with a sharp even pull.

Method 2 with a pressure cooker:

Add demineralised water (maximum 10 µS at 20°C) to a pressure cooker with an internal diameter of about 200 mm to a depth of 25 mm and place a test panel measuring 50 mm in it.

Place the lid in position and heat the pressure cooker until steam escapes from the valve. The weighted needle valve shall be adjusted to produce an internal pressure of 100 +/- 10 kPA (1 bar). Continue heating for 1 hour, timing from the moment when steam first escapes from the valve. Cool the pressure cooker, remove the sample and allow it to cool down to room temperature.

Apply an adhesive tape (see section 2.4) to the surface, ensuring that no air is trapped. After one minute, remove the tape at any angle of 45° with a sharp even pull.



REQUIREMENTS:

No blistering in excess of 2 (S2) according to ISO 4628-2. There shall not be any defects or detachment. Some colour change is acceptable.

c) Accelerated weathering test

EN ISO 11341

Luminous intensity: $550 \pm 20 \text{ W/m}^2$ (290 - 800 nm)

Black standard temperature: $65 \pm 5^\circ\text{C}$

Demineralised water: maximum 10 μS

Special UV filter (290 nm)

Cycles of 18 minutes in a wet medium and 102 minutes in a dry medium.

After 1000 hours of exposure, the test panels shall be rinsed with demineralised water and checked for:

Gloss variation: EN ISO 2813

60° angle of incidence

Colour change: ΔE CIELAB formula according to ISO 7724/3, measurement including specular reflection.

3 colour measurements shall be made on the test panels before and after the accelerated weathering test.

REQUIREMENTS:

Gloss retention

The loss of gloss after the accelerated weathering test shall not be greater than 50% of the original value.

Colour change:

Even though the colour is not uniform, the colour change can still be measured with instrumental apparatus. In this case, the provisional limit shall be $\Delta E = 2$ for a light base and 3 for a dark base.

In all cases, the final evaluation shall be based on a visual inspection using normal corrected vision, with a maximum value of 4 on the grey scale (ISO 105-A02).

5.1.2.2 Natural weathering test

Exposure in Florida according to ISO 2810

Samples shall be exposed at an angle of 5° to the horizontal and facing south towards the equator for 1 year.

The test shall start in April.

REQUIREMENTS:

For the time being, the acceptable limits are the same as those stipulated for the accelerated weathering test.



5.1.3 Extension for decoration using powder on powder technology

If the main coating and top coating have the same QUALICOAT approval (P-Number), an “extension for decoration using powder on powder” shall be granted by QUALICOAT on the same approval (P-Number) provided that the intercoat adhesion between both colours is checked on **WALNUT** decoration following QUALIDECO criteria.

5.2. Renewal of decoration system approvals

5.2.1 QUALIDECO approvals

To renew the approval of a decoration system each year, the powder supplier shall submit one colour for the base coat and one for the top coat to obtain the three decorations defined by QUALIDECO.

The laboratory tests shall be performed on decorated samples and on samples coated with the base and top colours separately.

5.2.2 Extensions for decorations using powder on powder technology

Every year, the powder supplier shall submit powders for one decoration defined by QUALIDECO.

The laboratory tests shall be performed on decorated samples and on samples coated with the base and top colours separately.

5.2.3 Tests

5.2.3.1 Laboratory tests

- Resistance to humid atmospheres containing sulphur dioxide
- Resistance to boiling water (pressure cooker)
- Accelerated weathering test.

5.2.3.2 Natural weathering (Florida)

See § 5.1.2.2.



Chapter 6

LOGO



6. LOGO

Authorisation to use the QUALIDECO logo may be granted on condition that the Holder of a QUALIDECO licence (hereinafter referred to as the “Holder”) operates in accordance with the Specifications. This authorisation is governed by a contract.

The granting of a licence entitles the Holder to use the logo for the products specified. The licence may not be transferred.

6.1. Register of Holders

QUALICOAT shall keep a register showing the name, address and trade description of each Holder, the date on which the licence was granted to the Holder, the number assigned to each Holder, the approved decorations, the date of withdrawal of the licence and any other information or details which QUALIDECO may deem necessary at any time.

The Holder shall notify QUALICOAT forthwith of any changes in name or address.

6.2. Use of the logo by Holders

The logo exists in black and white, in white and blue (PANTONE Reflex Blue CV; RGB: 14-27-141; CMYK: 100-72-0-6) and in blue and silver (PANTONE Silver 877u; RGB: 205-211-215; CMYK: 8-3-3-9).



**DECORATOR
FILM SUPPLIER
POWDER SUPPLIER**
(Licence No. xxxxx)



**DECORATOR
FILM SUPPLIER
POWDER SUPPLIER**
(Licence No. xxxxx)

The Holder may not make any alteration or addition to the logo when using it. In the event that the Holder's own brands or trademarks are used separately on or in connection with his products, these regulations may not be infringed in any manner whatsoever. Holders of a QUALIDECO licence shall at any time provide the GL with all information required as to the use of the logo.

Whenever making mention of or reference to QUALIDECO, the Holder must systematically indicate its licence number. This shall apply both to the use of the logo and in texts.

Improper use of the QUALIDECO logo may lead to the sanctions stipulated in § 6.4.



6.3. Withdrawal of licences

Failure to comply with the Regulations

The GL shall withdraw the licence if the Holder ceases to comply with these regulations and in particular if the Holder is guilty of any improper use of the logo or has failed to pay the annual fee.

In the event of withdrawal of a licence, the Holder shall be given notice in writing by the GL and such notice shall be effective immediately. In such event, all tags, labels, bands, stencils, stamps, wrappers, containers, price lists, business notices, business cards and any other objects in or upon which the logo is affixed shall either be delivered to the GL or, upon the GL's instructions, kept at the disposal of the GL until a new QUALIDECO licence is granted.

Significant changes in a company

In the case of any significant event in a company (change in shareholders or key personnel, new lines), that company shall notify the GL immediately. The GL shall be authorised to make a supplementary visit in order to ensure that the Holder continues to satisfy all the conditions stipulated in the Specifications.

If the Decorator ceases to trade, all tags, labels, bands, stencils, stamps, wrappers, containers, price lists, business notices, business cards and any other objects in or upon which the logo is affixed shall either be delivered to the GL or, upon the GL's instructions, kept at the disposal of the GL until a new QUALIDECO licence is granted.

Voluntary surrender

In the event of voluntary surrender of a licence, all tags, labels, bands, stencils, stamps, wrappers, containers, price lists, business notices, business cards and any other objects in or upon which the logo is affixed shall either be delivered to the GL or, upon the GL's instructions, kept at the disposal of the GL until a new QUALIDECO licence is granted.

6.4. Sanctions

In the event of improper use of the QUALIDECO logo or of any behaviour or action which could impair the image of the Quality Label, the following sanctions may be imposed either by the GL or by QUALICOAT in countries without a national association:

1. official statement
2. reprimand
3. withdrawal of the label.

The party concerned shall have the right to appeal first to the GL and then to the QUALICOAT Executive Committee, whose decision shall be final.



6.5. Amendments

The regulations stipulated in chapter 6 of the QUALIDECO Specifications may be amended if and when necessary. However, the Holder shall be allowed 4 months from the date of publication in which to comply with any such amendment.

6.6. Notices

Any notice required to be given to or by the Holder under these regulations shall be effective if sent by correctly stamped and addressed letter.



Appendices



APPENDIX II – Procedure for class 2 decorations

1. Tests

The tests are the same as for class 1 decorations, but the requirements are as follows:

a. Sampling

The decorated samples shall be prepared by the laboratory in charge, or alternatively by the film/powder producer or by the decorator in the presence of the inspector.

b. Accelerated weathering test

Following EN ISO 11341 under the conditions prescribed by QUALICOAT.

Testing time: 2000 hours, with gloss and colour change measured every 500 hours.

REQUIREMENTS

- Gloss variation
 - after 1000 hours, 90% residual gloss
 - after 2000 hours
 - 50% residual gloss for category 1,
 - 70% residual gloss for categories 2 and 3
- Colour change: visual assessment and instrumental assessment (for information).

c. Natural weathering test

Same requirements as for QUALICOAT class 2.

2. Granting of an approval

An approval shall be granted for each decoration produced and tested for class 2, identifying the base and the decoration.

3. Renewal of approvals

Approvals shall be renewed every year using two of the approved decorations.



APPENDIX III – Approval of new technologies

1. Scope

Decorations on coated aluminium can be obtained using different technologies, but technologies other than sublimation technology and powder on powder technology may only be used if previously approved by the QUALIDECO Committee.

It is the responsibility of QUALIDECO to develop a testing programme in order to check the quality of the new decoration product. The testing methods may be the same as for sublimation and powder on powder technology.

2. Description of new technology

Any company interested in having a new technology tested shall send a request to QUALIDECO giving technical explanations and providing information on laboratory test results and experience in the market.

Based on such information, the QUALIDECO Committee shall accept or reject the request, stating the reasons for its decision.

If the request is accepted, a QUALIDECO laboratory shall be asked to perform the tests to qualify the product. Tests other than those prescribed by QUALIDECO may be included in the testing programme if necessary. Outdoor exposure, if required, shall start only if the laboratory test results meet the requirements. The period of exposure shall be defined by QUALIDECO. It is the laboratory's responsibility to prepare a final report including all results.

3. Granting of an approval/licence

Based on the results obtained by the laboratory, QUALIDECO shall decide on the procedure to be followed to grant an approval (for the system tested) or a licence (for users of the system). The procedure shall also include the criteria for renewing and withdrawing an approval or licence.