„KWF PROFI“ mark for wood marking paints

Description of awarding

1. Application

After receipt of the signed and completed KWF examination application by post or digitally as a pdf document by e-mail, it is checked in the responsible department "Forestry Equipment and Tools". The same department will then provide feedback as to whether all information has been submitted correctly. The need for samples and documentation is communicated as well as the duration of the examination and the costs.

2. Need for samples

The following samples are required for each examination

- 15 spray cans in the colour red
- 9 spray cans in the colour blue
- spray cans in the colour yellow

3. Documentation required

- Signed application
- Product related safety data sheet
- Current product photo
- Current product label

4. Examination procedure

The study is divided into two parts that run in parallel. A detailed list of the individual criteria can be found in Annex I:

- Practical application
- Laboratory measurements

5. Practical application

After receipt of the samples at the KWF, distribution of the samples to professional forestry users in Germany, Austria and Switzerland (e.g. forestry training centres, entrepreneurs)

- Applying the colours to beech, spruce and pine directly after receipt
- Duration on the bark Minimum 12 months (all 4 seasons must be passed)
- Photo documentation in different light conditions, all vegetation periods, with and without flash triggering
- Assessment of recognisability, handling and the spray head

6. Laboratory measurements

The following laboratory measurements are carried out at KWF

- Yield
- Emptying level
- Beam pattern

The following laboratory measurements are carried out at accredited testing laboratories

- Ageing stability
- Particle measurement

7. Evaluation

After completing the 12-month practical assignment, the results of the examinations from the field and the laboratories are compiled and presented in the technical committee "Equipment and Tools". The expert committee meets twice a year, in spring and autumn. An investigation report is then formulated in the technical committee.

8. Appreciation

If the limit values specified in Annex I are complied with, the KWF PROFI mark is awarded. The recognition is limited to 5 years. Shortly after recognition, the corresponding research report is published on the KWF website and can be downloaded without access protection.

9. Not passing

If the limit values specified in Annex I are not complied with, the KWF PROFI mark may not be awarded. Applicants then have the opportunity to improve their product and re-apply. The Technical Committee "Equipment and Tools" then decides in which framework subsequent tests are to be carried out.

10. Costs

The "KWF PROFI" examination costs for wood marking paints are based on the current rate from the examination regulations.

The contact details of the person currently in charge at the KWF are as follows:
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Annex I

Explanations of the examination criteria and evaluations

Status: December 2021

	No.	Criteria	Rat-ing	Classification
Practical evaluation (Assessment period 12 months)	Spray head	Spray system • Ergonomics • Function	- o + ++	Sticks/clogs quickly Standard system, normal operation no unintentional actuation no unintentional actuation and position-independent spray angle
	Handling	Personal feeling • Shaking effort • Environment	- o +	Unfavourable Normal Favourable
	Identifiabil-ity	Luminosity, reflection, contrast and complete-ness of the markings on beech, spruce and pine	- o + ++	poorly recognisable visible > 50% of the spray area, well visible > 80% of the sprayed area very well recognisable (complete coverage)
Test laboratory	Yield	Number of possible spraying cycles • with standardised shaking movements • Normal temperature 20°C • Cold - 5°C	- o + ++	≤ 100 100 – 150 150 – 200 ≥ 200
	Emptying level	Comparison of empty sprayed weight to newly emptied weight • Can is opened • Normal temperature 20°C • Cold - 5°C	- o +	<u>Difference</u> ≥ 20% 10 – 20% ≤ 10%
	Ageing stability	Alternating loads with • UV irradiation, humidity and temperature • Test duration: 250 h	- o + ++	<u>Ageing number</u> ≥ 25 15 – 25 5 – 15 ≤ 5
	Beam image	Constant spray movement • Plywood surface; distance 15cm • at normal temperature 20°C	- o +	Uneven core zone; dispersion >70%. Uniform core zone; dispersion 30 - 70% Very uniform core zone; dispersion < 30%
Health protection	Marking	GLP Ordinance Labelling obligation according to the Hazardous Substances Ordinance	- o + ++	 None
	Ingredi-ents	TRGS 600 Calculated impact factor (WZ)	- o +	5 – 10 1,5 – 5 ≤ 1,5

	Particle size	The Q $_{[2,5]}$ - value indicates the percentage of droplets with a diameter of ≤ 2.5 µm that can reach the alveoli and are generally referred to as respirable. The Q $_{[10]}$ -value indicates the percentage of inhalable droplets with a diameter of ≤ 10 µm that can still pass through the upper airways.	- o + - o +	**Q[2,5] [µm]** 2,8 - 2,2 <2,2 - 1,1 <1,1 - 0,3 **Q[10] [µm]** 15,9 - 11 <11 - 6,1 <6,1 - 1,2