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"IMPOL SEVAL"  
"VALJAONICA ALUMINIJUMA" a.d.  
SEVOJNO  
Proj: 405/14  
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## GENERAL WARRANTY FOR PREPAINTED MATERIALS MANUFACTURED BY IMPOL SEVAL a.d. SEVOJNO

### 1. SCOPE

These conditions apply to prepainted sheets and coils manufactured by IMPOL SEVAL a.d. coated with organic coatings according to Coil Coating technology, with the warranty periods as defined in the Appendix 1 which presents a constituent part of the present Warranty.

The present Warranty is valid only with the signed Order Confirmations between IMPOL SEVAL a.d. /Serbia (the Supplier) and the Customer and it is not transferrable to any third parties without a written consent of the Supplier.

The characteristics of the prepainted materials are defined in the individual Order Confirmations and/or related Technical Data Sheets.

IMPOL SEVAL a.d. confirms that the coat layer meets protective and aesthetic criteria, depending on the type of organic coating, applied coating system and place of installation.

IMPOL SEVAL a.d. guarantees that ageing of the layer of the surface subjected to the same climatic conditions will be uniform over the years, in compliance with the warranty periods.

Prepainted aluminium can be used :

- above 30° of north latitude and below 30° of south latitude,
- at altitude below 900m,
- at locations min. 1000m distant from sea
- at locations more than 1000m distant from industrial areas where air quality is not significantly jeopardized thus not being considered extreme industrial conditions.

In the zone between 30° to 30° north and south of equator, conditions for application and the terms of sale of coil coated aluminium shall be agreed separately.

This warranty applies to the various colours as specified by colour classes in the Appendix 2.

### 2. GENERAL CONDITIONS

#### 2.1. Documentation

The customer must keep the samples and traceable documentation on procurement, processing and installation of prepainted aluminium purchased from IMPOL SEVAL a.d. The customer must also have the documentation on maintenance of the facilities where the material is installed.

The documentation must be kept over the entire warranty period.

## **2.2. Storage, processing and installation**

2.2.1. The customer must have adequate capacities for storage and processing of the material and quality control procedures which meet the requirements of applicable standard.

2.2.2. Coated coils and sheets shall be stored at a stable temperature in a closed room where no following conditions may arise:

- humidity condensation in air ;
- contact with wet and corrosive materials; Contact with wet concrete, wet wood, wet soil and other wet surfaces is not allowed.
- contact with copper and copper dust

2.2.3. The temperature of the prepainted sheets and coils must be  $\geq +15^{\circ}\text{C}$  during machining, i.e.  $\geq +20^{\circ}\text{C}$  during manual processing.

2.2.4. If prepainted sheets and coils are stored at a lower temperature, it is necessary, before processing, to bring them into the room where the temperatures required for processing will be reached, as defined in the item 2.2.3.

2.2.5. Processing ( bending, roll forming...) may be carried out only within the limits as defined by Sales Agreement / Order confirmation or technical specification being their integral part and if mechanical values of basic material and coating system are not exceeded. The same condition applies if the sheet is not taken back in its original position after bending.

2.2.6. While working with coated products, usage of abrasive plates must be strictly avoided. Potential coat repairs due to cutting, scratches or abrasions shall be done using only suitable tooling.

2.2.7. During installation, scratches and contusions must be avoided. Installation staff must be equipped with shoes with soles made of soft rubber. In order to avoid exceeding pressure applied to wall panels with visible fixers, screws with limiters for screwing depth must be used.

2.2.8. The warranty is valid for coated material installed on vertical surfaces or surfaces exposed to more than  $5^{\circ}$  from horizontal.

2.2.9. The coated material should be processed or applied within 6 months after delivery to the customer.

2.2.10. After installation, vacuum clean all dirt and metal filings from the surface.

## **2.3. Inspection**

2.3.1. After installation has been completed, check efficiency of the system for meteorologic waters. To confirm full functionality of the system, a Protocol shall be signed.

2.3.2. Rainwater shall freely flow down all surfaces, i.e there shall not be any, not even partial retention. Installed surfaces must not be spilt over by liquid from copper or iron gutters.

2.3.3. Within the application period, the customer undertakes, by mediation of an authorized institution, to inspect the conditions of installed surfaces and specify a need for certain maintenance interventions.

## **2.4. Maintenance**

Maintenance interventions are always necessary in the following cases:

2.4.1. Precipitation of materials of any nature /leaves, debris, dust and alike/ on roofs , especially in gutters and coves, which may cause difficulties for regular flow of atmospheric waters. Particular attention should be paid to horizontally installed gutters, where solid particles originating from atmosphere get accumulated

thus requiring removal. It is mandatory to remove(clean) foreign matters until product surface is visible and until it is established whether there has been any damage. Cleaning method shall be water rinse by means of neutral and non-abrasive detergents. Where required, soft brushes shall be used in order not to avoid coated surface.

2.4.2. Precipitation of aggressive substances derived from corrosive environment and gas emissions from chimney. In case of presence of the dust, it is necessary to carry out preventive cleaning by removing the entire layer of rust down to the metal substrate. Then, an even layer of 2-component epoxy primer shall be applied followed by application of a specific paint.

2.4.3. Abrasions and scratches on paint formed during installation or accidents must be immediately protected by repairing the paint with suitable products.

## **2.5. Surface protection**

Top side of the prepainted materials can be protected with PE foils as follows:

- 50 µm blue transparent
- 80 µm clear transparent
- 100 µm black/white suitable for laser cutting with or without arrows

These foils are used for temporary surface protection against dirt, scratches and tool marks during handling, transport and storage, forming and assembly. The prepainted materials with the applied foil shall be stored in a dry storage place. Prolonged outside exposure or extended exposure to the direct sunlight or extreme temperatures and pressure can severely affect the foil protection properties. The foils are not suitable for extreme thermoforming.

The foil should be peeled-off carefully and evenly without pulling, dragging and drawing immediately after processing and installation of the material, maximum 6 months after the delivery of the material at the temperatures between 5 and 30°C.

Impol Seval shall not be responsible for the adhesion properties of the foil and improper removal of the foil in case of improper storage and processing of the material.

Foil data sheets are available on request.

## **2.6. IMPOL SEVAL a.d. is not responsible for the quality of coated aluminium in the following cases:**

2.6.1. If the Customer's inquiry (based on which the sales agreement/order confirmation is concluded) contains the information about the material which is not complete or true;

2.6.2. If the Customer has not paid full invoiced value for the material delivered.

2.6.3. In case of improper usage, storage, handling and in case processing and installation of the prepainted sheets and coils is carried out in an irresponsible and unskillful manner.

2.6.4. If during processing the above mentioned bending and roll forming requirements have not been respected.

2.6.5. In case of any physical or chemical damages which occurred after taking over the material by the Customer.

2.6.6. If the Customer failed to deliver to IMPOL SEVAL a.d. a written notice 15 /fifteen/ days from the date of appearance of non-allowed material changes over the application period.

2.6.7. For damages  $\leq 5\%$  of the total surface on the installation site.

2.6.8. If delivered prepainted sheets and coils are subsequently coated or lacquered by the customer.

2.6.9. If delivered prepainted sheets and coils are embossed or perforated by the customer.

2.6.10. If any works on repair, renovation or the works after installation are not in compliance with instructions, recommendations or standard procedures.

2.6.11. If prepainted sheets and coils are exposed or used in the conditions where normal downfall of water is not provided thus allowing for partial retention or condensation.

2.6.12. If prepainted sheets and coils are used in particularly corrosive conditions or aggressive environments where a high salt concentration in air is confirmed ; where coated surfaces are in constant contact with water or where they get in touch with corrosive emissions, chemicals , steam condensation, cement dust or faeces.

- 2.6.13. If prepainted sheets and coils are used in any environment other than defined in the item 1.
- 2.6.14. Irregular events such as: explosions, fire, earthquakes, underwater shocks, extreme meteorological phenomena, exposure to sand winds, riots, vandalism etc.
- 2.6.15. Failure to stick to the above mentioned instructions for use and maintenance
- 2.6.16. When using inappropriate joining, fixing or sealing materials.
- 2.6.17. For panels exposed to temperatures permanently over 70° C.

### 3. CLAIMS

3.1. The Customer must place a written claim within 15 days after any alleged defect was discovered. He must also provide proofs that the claim refers to the material delivered by IMPOL SEVAL a.d.

3.2. When placing a claim the Customer must submit:

- video record and/or photos of the claimed defect
- the cause for the claimed defect
- precise identification of coated aluminium sheets and coils being the subject of a claim (Coil No./sheets package No., invoice No., order confirmation No., according to which the claimed material was delivered)
- installation data (original invoice or other document proving purchase or sale to other customers, installation record or other document confirming both the installation date and that installation was carried out by an expert company)
- terms and condition of any warranty that the Customer gave for the claimed material.

3.3. IMPOL SEVAL a.d. may either accept the claim based on prior submission of documents or subject the claim to further discussion. When required by IMPOL SEVAL a.d., the Customer must enable IMPOL SEVAL's representative to inspect the facility being claimed. Any commencement of repair or replacement works in regard to alleged defect of the claimed material before the inspection is completed by IMPOL SEVAL a.d. and before the claim is finally solved shall exclude any responsibility of IMPOL SEVAL a.d. as far as the compensation of the costs is concerned.

3.4. After the claim is evaluated, IMPOL SEVAL a.d. will notify the Customer whether the claim is accepted or not. If the claim is accepted, IMPOL SEVAL a.d. will establish the total costs by choosing the most favourable offer for repair aimed to eliminate the defect.

For accepted claims the Warranty shall cover 100% of the agreed claim costs for half of the agreed warranty period as per the Appendix 1, and in any case not longer than 10 years.

After that period, IMPOL SEVAL a.d. shall cover a part of the total claim costs according to the following formula:

$$P = \frac{R}{Q} \times 100\%$$

where:

- P = percentage of total costs to solve the claim ;
- R = remaining warranty period validity (in years, calculated to the closest 1/10 on the date of claim); and
- Q = Beginning of the warranty period validity (in years) as specified in the Appendix 1 for the suitable product and paints.

3.5. After receipt of notification on the total costs to solve the claim by IMPOL SEVAL a.d. and on the part of the costs to be borne by IMPOL SEVAL a.d., it is at the Customer's choice whether the claim shall be solved either by repair or pecuniary compensation, which shall be advised to IMPOL SEVAL a.d. in writing.

-If the Customer chooses repair as a solution to the claim, they must remit to IMPOL SEVAL a.d. a part of repair costs to be borne by the Customer according to the settlement described in the Item 3.4. After receipt of payment effected by the Customer, IMPOL SEVAL a.d. will employ skilled contractors to carry out the necessary works. Repair of the defective part must be done skillfully in order to ensure uniform appearance in regard to the remaining part of the claimed facility. As for the repaired parts, the Warranty will apply for the remaining warranty period.

-If the Customer chooses pecuniary settlement, IMPOL SEVAL a.d. will pay to the Customer the amount equal to ninety per cent (90%) of the part of the costs to be borne by IMPOL SEVAL a.d. Payment will be effected only after the Customer's advice in writing that IMPOL SEVAL a.d. is fully and completely relieved from any responsibility for defects on the facility concerned. After that, IMPOL SEVAL a.d. shall have no responsibility whatsoever in reference to the claimed facility.

3.6. If the Customer fails to keep confidential all details on all claims and their solutions, IMPOL SEVAL a.d. shall have no responsibility for compensation of damages based on this document.

3.7. If, based on proofs, it is established that alleged defect or condition claimed by the Customer could not be considered a fault of IMPOL SEVAL a.d., the Customer shall indemnify IMPOL SEVAL a.d. for all costs of procedures used to verify whether the claim was justified or not.

3.8. IMPOL SEVAL a.d. shall not be responsible for either direct or indirect costs exceeding the amount of costs as specified in point 3.4.

3.9. In any case the total amount of reimbursement that IMPOL SEVAL a.d. should pay under this Warranty shall not be higher than double the value of the claimed material.

#### **4. TERMINATION OF THE WARRANTY**

The Warranty shall be terminated and void if:

-the data about the material indicated in the Customer's inquiry based on which the Warranty shall be issued are incomplete or incorrect;

- the Customer assigns its rights according to the Warranty to the third party without a prior written consent of IMPOL SEVAL a.d.;

- the Customer fails to keep confidential all details on any claims and compensations related to the claims in reference to the present Warranty.

-IMPOL SEVAL a.d. has not received the full invoiced price for the material subject to the present Warranty.

#### **5. OTHER PROVISIONS**

##### **Disputes and jurisdiction**

For any disputes referring to interpretation and application of this document, jurisdiction of a competent court in Uzice, Republic of Serbia, shall apply.

##### **Non-Waiver**

Failure of IMPOL SEVAL a.d. to apply any terms and conditions contained in present Warranty shall not affect the right of IMPOL SEVAL a.d. to subsequently request execution of any such terms or conditions and it shall not be considered a waiver of any rights of IMPOL SEVAL a.d.

**Disclaimer**

Except in the cases states herein, the Customer shall not place any other claims referring to the subject Order Confirmations to IMPOL SEVAL a.d. for the material defects of whatsoever origin.

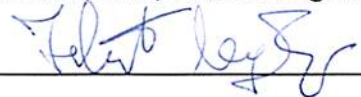
**6. REFERENCE STANDARDS AND TEST METHODS:**

ISO standard	ECCA method	Description
EN 13523-1	ECCA-T1	Film thickness
EN 13523-2	ECCA-T2	Specular gloss
EN 13523-3	ECCA-T3	Colour difference - instrumental comparison
EN 13523-4	ECCA-T4	Pencil hardness
EN 13523-5	ECCA-T5	Resistance to rapid deformation (impact test)
EN 13523-6	ECCA-T6	Adhesion after indentation (cupping test)
EN 13523-7	ECCA-T7	Resistance to cracking on bending (T-bend test)
EN 13523-8	ECCA-T8	Resistance to salt spray (fog)
EN 13523-11	ECCA-T11	Resistance to solvents (rubbing test)
EN 13523-22	ECCA-T22	Colour difference - visual comparison

For IMPOL SEVALa.d. :

Technical approval:

Ljubomir Jevtić, Coil Coating Line Manager



Milena Jovicevic, Coil Coating Line Technologist



Budimir Bulatović, Executive Manager for Technical Issues



Ninko Tesić, General Manager



# APPENDIX 1 WARRANTY FOR THE PROPERTIES OF THE COATING

COLOUR TYPE	Max. warranty period in years	REDUCTIONS IN THE WARRANTY PERIOD													Allowed changes within the warranty period		
		For roofing applications	Installation environment						Colour class			Zone					
			City	Industrial	Coastal (3-20 km)	Combined	Marine (1-3 km)	Severe Marine	A	B	C	Above 45°N	37°-45° (N or S)	37°N to 37°S			
Standard polyester (PE)	10	-2	-1	-2	-2	-2	-3	NG	0	-3	AG	0	-2	AG	8 DE	>30%	min.4
High-Super polyester/ durable polyester (HDPE)	15	-3	-1	-2	-2	-2	-3	NG	0	-5	AG	0	-3	-7	8 DE	>40%	min.6
2-coat PVDF	20	-5	-1	-2	-3	-3	-5	AG	0	-8	AG	0	-6	-10	8 DE	>50%	min.5
3-coat PVDF	25	-5	0	-3	-2	-3	-4	AG	0	-8	AG	0	-6	-10	5 DE	>60%	min.7

## NOTES:

1. All reductions in years; "NG" means that it is not covered by the Warranty. "AG" means that the general Warranty doesn't apply, but the terms and conditions shall be agreed separately
2. "City" includes any urban areas; "Industrial" means a location where the air quality is adversely affected by environment, but not to the degree of being a source of corrosion due to the prevalence of airborne chemical compounds (therefore being considered "Extreme industrial conditions" for which the warranty doesn't apply)
3. "Severe Marine" includes all installations within 1000 m of shoreline and all offshore installations
4. In case of Metallic Effects, the evolution of the appearance will only be visually evaluated and accepted when happening in slow, progressive and uniform way on all surfaces exposed to the same orientation in the same exposure conditions. Fading and colour change cannot be uniform if the painted surfaces are exposed in a non-uniform way. Any warranty is expressly excluded in this respect.



## **APPENDIX 2 - COLOUR CLASSES**

[illegible][illegible]

C		RAL 1003	RAL 1004	RAL 1005	RAL 1005	RAL 1007	RAL 1012	RAL 1016	RAL 1017	RAL 1018	RAL 1021	RAL 1023	RAL 1027	RAL 1028	RAL 1032
RAL 1033	RAL 1034	RAL 1037	RAL 2000	RAL 2001	RAL 2002	RAL 2003	RAL 2004	RAL 2008	RAL 2009	RAL 2010	RAL 2011	RAL 2012	RAL 3000	RAL 3001	RAL 3002
RAL 3003	RAL 3004	RAL 3011	RAL 3012	RAL 3013	RAL 3014	RAL 3015	RAL 3016	RAL 3017	RAL 3018	RAL 3020	RAL 3022	RAL 3027	RAL 3031	RAL 4002	RAL 4003
RAL 4004	RAL 4005	RAL 4006	RAL 4007	RAL 4008	RAL 4010	RAL 5002	RAL 5005	RAL 5010	RAL 5012	RAL 5015	RAL 5017	RAL 5018	RAL 5019	RAL 5021	RAL 5022
RAL 6001	RAL 6002	RAL 6010	RAL 6016	RAL 6017	RAL 6018	RAL 6024	RAL 6027	RAL 6029	RAL 6032						