

General Guarantee for LACOMET® FL

REPPEL b.v. Bouwspecialiteiten ("REPPEL") produces LACOMET® FL, (the "Product") and supplies the Product.

REPPEL guarantees to the buyer of the Product that Products are free from production errors. However, if the Product appears to have a production error ("Faulty Products") and if reported in due time and with reference to this General Guarantee, REPPEL will repair or replace the Faulty Products as it sees appropriate and to her opinion only in accordance with the conditions below.

THE FOLLOWING CONDITIONS APPLY TO THIS GUARANTEE:

1. This guarantee only comes into effect if:
 - (i) REPPEL have been paid in full for the delivered materials.
 - (ii) The Products have been applied in accordance with the current Assembly manual of REPPEL and the BDA report 06-G-0215 (28 February 2008, BDA Geveladvies B.V.) as can be found on REPPEL's internet site
 - (iii) The Products have been exclusively applied as stated under "application possibilities" in the LACOMET® FL folder ((REP 1112) of REPPEL.

2. The guarantee is valid for a period of 10 years (Guarantee Period), starting from when the Products are delivered to the Buyer, and also applies, though only for the remaining Guarantee Period, after Products have been repaired or replaced by REPPEL.

3. This Guarantee does not include damage caused by:
 - a. Normal wear and tear to the surface of the painted product, which does not have a negative impact on water-resistance properties.
 - b. Products that have been incorrectly installed by the engineer;
 - c. Circumstances beyond the control of REPPEL once Products have been delivered, such as, though not limited to: incidents during handling, storage, assembly, removal or repeated installation, the application of new paint layers on the Product without prior consultation with REPPEL, damage or other changes to the Product, force majeure (including fire, flooding, explosions, earthquakes, lightning strikes) and other external factors, including collisions, subsidence or (partial) collapse of buildings or damage caused by vandalism, war or terrorism.
 - d. The failure of offering REPPEL to inspect the Faulty Products.

4. REPPEL's liability in this Guarantee will be limited to the following:

REPPEL, to her own decision, will select from the following options, either:

 - (i) Repair the Faulty Products, or
 - (ii) Supply a new Product as replacement, or
 - (iii) Repay maximum 3 (three) x the net retail price that Reppel has received (or, in case of a total sales price, a proportionate share of it). This compensation applies to the first 5 years after installation of the material; the compensation will decrease by 20% each year as of the sixth year. REPPEL is not responsible for potential costs associated with removing Faulty Products and/or reinstallation, which includes other costs for labour, scaffolding and transport.

5. Any claim under this guarantee must be sent immediately by way of registered letter, before expiry of the Guarantee Period. REPPEL must be given the opportunity to inspect the Faulty Products, in order to determine which actions must be taken to respond to the claim.

All correspondence and claims under this Guarantee must be sent to:

Managing Director
REPPEL B.V. Bouwspecialiteiten
P.O. Box 102
3300 AC Dordrecht
The Netherlands

6. This Guarantee is subject to the regulations in the United Nations Convention on Contracts for the International Sale of Goods (CISG). All disputes relating to this Guarantee are exclusively subject to Dutch law and will be presented for evaluation and judgement to the Court in Rotterdam.

REPPEL b.v. Bouwspecialiteiten
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The Netherlands
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Date: 10-06-2011

Appendices: data sheet "Durability LACOMET® FL"
Safety Data Sheet d.d. 21.04.2009

Durability LACOMET® FL

In the aluminium industry, since circa 1985 there has been a great deal of focus on the prevention of corrosion, partly because a few major Dutch projects displayed a special type of corrosion - filiform underfilm corrosion. The corrosion on the facade of the library in The Hague attracted particular attention, more so because the facade panels were placed by a well-renowned company. Initially, studies into the cause of this corrosion were limited to the aluminium processing industry, which were used to reach important, though not very surprising, conclusions: vigilance and process-controls in the pre-treatment process, and baking aluminium materials in the correct conditions, would result in a clear and immediate improvement in results.

However, these analyses were not conclusive. Despite effective care and process management, cases of damage were still being encountered.

In the meantime, various universities in Norway, England and the Netherlands had started research into the phenomenon from a variety of perspectives.

In 1996, all these activities were embodied in the European "Ficarp" study (**Filiform Corrosion of Aluminium Rolled Products**).

This study eventually exposed the mechanism behind the initiation and propagation of filiform corrosion.

The aluminium sector in the European coil coating industry (continuous coil coating) was hindered considerably in its growth due to the corrosion incidents.

The norms for durability at that time were limited to a few hurried laboratory tests that aimed to simulate the corrosion and weather resistance of materials and coating systems, but often failed to represent practical situations.

To address the doubts of potential customers wanting to use aluminium plating, the ECCA (European Coil Coating Association), which is the umbrella association at European level, developed norms in 1995-1996 for coated aluminium -and later for steel - in the construction sector, which were based on objective performance results rather than hurried and unreliable laboratory tests performed by banks.

The norm for aluminium was EN1396, which has, in the meantime, been generally accepted as a European norm (CEN).

This norm establishes the quality standards for corrosion and weather resistance in indices.

The following page contains a brief description of the indices for positioning LACOMET® FL in this system.

1. Corrosion

Corrosion-resistance index 1 requires little resistance against corrosion (dry indoor applications in offices, for example), material with index 2 must be better suited for, for example, applications in inland climate conditions.

Corrosion index 3 is the most demanding category and guarantees that, after 3 years of outdoor exposure under a roof, vertically exposed in a northern direction in Hoek van Holland (exposed to the mouth of the Waterweg) or Hendaye (South of France, immediately against the Atlantic coast), 2 of the 4 sites standardised by the ECCA, underfilm corrosion greater than 2mm will not be encountered from a scratch placed on the sample panels, nor from the defined curves on the panels.

LACOMET® FL guarantee corrosion index 3.

2. Weather-resistance

A comparable system has been developed for the weather-resistance of coating systems, the UV-resistance index, whereby the following permitted changes have been established for the optical and coating properties after 1, 3 or 5 years of exposure in Lisbon, 45° South (the third exposure site standardised by the ECCA):

- Colour difference
- Loss of shine
- Oxide shedding
- Cracking
- Peeling
- Blistering
- Chalking

LACOMET® FL guarantees index 2 for the implemented coating system.

Index 2 is the quality standard that applies to the lion's share of coating systems used in the construction sector; I am only familiar with two expensive coating systems that achieve index 3. Index 2 is more than sufficient and, after 3 years of exposure, guarantees maximum colour change of 5 CIELab units, a maximum shine of 30% compared to the starting shine, no traces of oxide shedding, cracking, peeling or blistering. Chalking will be maximum class 3 according to the ISO 46286 testing method.

For further information please refer to norm EN1396.

REPPEL is of the opinion that LACOMET® FL offers our customers the certainty they deserve.

REPPEL b.v. Bouwspecialiteiten
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Safety Data Sheet

according to 1907/2006/EC, Article 31

Printing date 21.04.2009

Revision: 21.04.2009

1 Identification of substance:

***Product details:**

***Trade name:** LACOMET FL

***Application of the substance / the preparation** Aluminium alloy containing fiber glass

***Manufacturer/Supplier:**

Reppel B.V. Bouwspecialiteiten

P.O. Box 102

NL 3300 AC Dordrecht

The Netherlands

Tel. +31-(0)786174400

***Information department:** Product safety department.

***Emergency information:** Product Safety Department

2 Hazards identification

***Hazard description:** not applicable

***Information pertaining to particular dangers for man and environment**

The product does not have to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

***Classification system**

The classification was made according to the latest editions of the EU-lists, and expanded upon from company and literature data.

***GHS label elements** Void

3 Composition/information on ingredients

***Chemical characterization**

***Description:** Mixture of the substances listed below with nonhazardous additions.

***Dangerous components:** Void

***Additional information**

Product compositional ranges are shown for health, safety and environmental use and are not intended to form any part of a specification.

For the wording of the listed risk phrases refer to section 16.

4 First aid measures

***General information** No special measures required.

***After inhalation**

Supply fresh air; consult doctor in case of complaints.

Seek medical treatment in case of complaints.

***After skin contact** Immediately rinse with water.

***After eye contact** Rinse opened eye for several minutes under running water.

***After swallowing** If symptoms persist consult doctor.

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5 Fire fighting measures

***Suitable extinguishing agents**

CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

***Protective equipment:** No special measures required.

6 Accidental release measures

***Person-related safety precautions:** Not required.

***Measures for environmental protection:** No special measures required.

***Measures for cleaning/collecting:** Pick up mechanically.

***Additional information:** No dangerous substances are released.

7 Handling and storage

***Handling**

***Information for safe handling:**

During cutting protective gloves are recommended. Avoid to inhale Lacommet FL dust / powder

***Information about protection against explosions and fires:** No special measures required.

***Storage**

***Requirements to be met by storerooms and receptacles:** No special requirements.

***Information about storage in one common storage facility:** Not required.

***Further information about storage conditions:** None.

8 Exposure controls and personal protection

***Additional information about design of technical systems:** No further data; see item 7.

***Components with limit values that require monitoring at the workplace:**

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

***Additional information:** The lists that were valid during the creation were used as basis.

***Personal protective equipment**

***General protective and hygienic measures**

Vacuum clean contaminated clothing. Do not blow or brush off contamination.

***Breathing equipment:** Not required.

***Protection of hands:**

Not required.

For the permanent contact in work areas with heightened risk of injury (mechanical hazard) no recommendation for a suitable glove material can be given.

***Material of gloves**

Use chemical resistant gloves classified under standard EN 374: Protective gloves against chemicals and micro-organisms. Examples of preferred glove barrier materials include: Butyl rubber. Chlorinated polyethylene (NEOPRENE). Natural rubber ("latex"). Polyethylene. Ethyl vinyl alcohol laminate ("EVAL"). Nitrile/butadiene rubber ("nitrile" or "NBR").

***Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

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*Eye protection:



Safety glasses

9 Physical and chemical properties:

*General Information

Form:	Solid material.
Colour:	According to product specification
Odour:	Characteristic

*Change in condition

Melting point/Melting range: undetermined
Boiling point/Boiling range: undetermined

***Flash point:** Not applicable

***Self igniting:** Product is not selfigniting.

***Danger of explosion:** Product does not present an explosion hazard.

***Vapour pressure at 20°C:** 23 hPa

***Density at 20°C:** 1.75 g/cm³

***Solubility in / Miscibility with Water:** Insoluble

*Solvent content:

Organic solvents: 0.0 %

***Solids content:** 100 %

10 Stability and reactivity

***Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.

***Dangerous reactions** No dangerous reactions known

***Dangerous products of decomposition:** No dangerous decomposition products known

11 Toxicological information

***Acute toxicity:**

***Primary irritant effect:**

***on the skin:** No irritant effect.

***on the eye:**



Irritating effect.

***Sensitization:** No sensitizing effects known.

***Additional toxicological information:**

The product is not subject to classification according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:

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When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

13 Disposal considerations

***Product:**

***Recommendation**

On the basis of the necessary technical regulations and after consultation with the disposal agent and the relevant authorities, can be disposed of with domestic waste or incinerated with domestic waste.

This product can be recycled

***European waste catalogue**

The EC waste catalog number (EAC) can only be determined after the type of use by the end-user is known for this product.

***Uncleaned packagings:**

***Recommendation:** Packaging can be reused or recycled after cleaning.

14 Transport information

***Land transport ADR/RID (cross-border)** Free transport

***ADR/RID class:** -

***Remarks:** Free transport

***Inland shipping ADN:**

***Remarks:** Free transport

***Maritime transport IMDG:**

***IMDG Class:** -

***UN Number:** Not UN regulated

***Marine pollutant:** No

***Remarks:** Free transport

***Air transport ICAO-TI and IATA-DGR:**

***ICAO/IATA Class:** -

***Remarks:** Free transport

***UN "Model Regulation":** -

15 Regulations

***Markings according to EU guidelines:**

Observe the general safety regulations when handling chemicals

The product is not subject to identification regulations under EU Directives and the Ordinance on Hazardous Materials (GefStoffV).

***National regulations** This product is non hazardous

***Information about limitation of use:** No known restrictions

***Technical instructions (air):**

***VOC content of coatings according EU regulations** -

16 Other information:

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

***Department issuing MSDS:** Environment protection department

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***Abbreviations and acronyms:**

To the best of our knowledge, the information contained herein is accurate. However, neither the above supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organization

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

**** Data compared to the previous version altered.**

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