

ENVIRONMENTAL PRODUCT DECLARATION

Cladseal INT

The Company

SealEco
P.O. Box 514
SE-331 25 Värnamo

Overview

The division develops manufactures and markets, rubber membranes and system solutions for waterproofing and is the market leader in Europe. The most common applications are commercial roofing, water reservoirs, dam plants and waste tips. The organisation is certified in accordance with SS EN ISO 9001:2008.

Environmental work

The work is carried out according to the environmental policy, which has been adopted by SealEco with an environmental management system in accordance with ISO 14001:2004. The manufacturing organisation has a duty to report in accordance with the environmental protection act and is annually reported to the county administrative board in Jönköping.

The product

Area of use

Watertight layer in reservoirs, irrigation channels, garden dams, waste disposal sites as well as roofs, terraces and beams, etc.

Description

Cladseal INT has a cross-linked polymer structure, which gives the product unique elasticity and unsurpassed ageing resistance, without problematic additives, in the most varying environmental and climatic conditions. Advanced polymer technology makes it possible to attain these qualities with thin membrane thicknesses. Long life combined with low weight and volume per installed unit gives a product very economical in resources in its whole life cycle.

Included material

| | |
|--------------|-----|
| EPDM polymer | 29% |
| Carbon black | 42% |
| Mineral oils | 25% |

Additives

| | |
|-------------------|----|
| Vulcanising agent | 1% |
| ZnO | 1% |

The product does not contain chemicals from the Limitation or Allergy list issued by the National Chemicals Inspectorate.

Manufacturing

Raw materials are mixed to a compound in the form of slabs. The material is heated and calendared into two separate layers which are laminated together. After cooling, the rubber sheeting and a textile interlining are rolled up on a steel drum. The rubber is then cross-linked by vulcanising in autoclave. Thereafter the intermaterial and rubber sheeting are rolled out and separated. The textile is reused; the rubber sheeting is inspected and packaged.

Waste disposal

Paper is gathered for recycling. Other waste, approx. 20 g/m², goes to energy recovery and special landfill. Environmentally dangerous waste approx. 0.7 g/m² goes to an authorised entrepreneur.

Discharge into water and ground

Nothing discharged into water and ground. Cold water is circulated in the system. Wastewater and storm water are connected to the sewer system of the municipality.

Discharge into the air

Vulcanisation fumes approx. 20 mg TVOC/m².

Energy

Electricity consumption approx. 1.1 kWh/m².

Distribution

Transport volume: approx. 400 m²/m³ load volume.

Production location: Värnamo/Sweden

Method of transport: Lorry, Train, Ship.

Forms of transport

From factory direct to customer as well as via retailers. The deliveries are adapted for best cost-efficiency/use of resources.

Packaging

The rubber sheeting is rolled up on a cardboard case and packed in polythene bag. The rolls are then placed on their sides with roll support on a European pool pallet.

Packaging g/roll

| | |
|-----------------|--|
| Cardboard case: | 750 g |
| Polythene bag: | 85 g |
| Total approx. | 25 g per m ² installed product. |

The division is affiliated to REPA.

The building stage

Cladseal INT is used as facade waterproofing and damp proof course applications. Loading pallets are part of the return system. Other packaging is pre-separated at source and recycled.

The usage stage

Use

No resources to maintain the watertight layer's function during use are required over and above the instructions and orders for the personnel treading upon the watertight layer. The rubber sheeting does not emit any measurable emissions.

Maintenance

The rubber sheeting does not require any maintenance apart from regular care. Any damage is repaired with the same product.

Life span

Rubber sheeting has been used in sealing systems since the end of the 40's, often in very extreme environments and climates. At plants still in use, there is rubber sheeting which, after 50 years, fulfils its original function.

Demolition

Supplies of rubber sheeting from building demolitions must always be agreed upon.

- The sheeting must be clean of pollutants, metal parts and other foreign objects.
- The sheeting must be divided into manageable sizes and rolled up or folded together on a pallet.

Delivered material must be specified in accordance with the following:

- Supplier.
- The name of the project, the quality stamp and year of manufacture of the rubber sheeting.
- Amount in kg or m² per package as well as the total amount.

Residual products

The rubber sheeting's good ageing resistance makes it possible to utilise products in a number of ways after requirements in question.

Reusing

The sheeting can be used and reused in other buildings.

Recycling

If the sheeting is not too dirty, it can be ground down to powder and used as a raw product for manufacture of new rubber sheeting or as additives in plaster to increase elasticity and impact-strength. In pyrolysis plants, gaseous fuel and carbon black are obtained from rubber.

Energy recovery

The rubber sheeting's heat value 43 MJ/m² and mm can be obtained by combustion in waste heating plants and cement kilns.

Waste products

Leaching and emissions do not occur.

Other information

This declaration gives information for a qualitative assessment of the effect on the environment.

Our Quality & Environment Manager SealEco, phone +46 370 510 100, is at your service for further questions.



| Cladseal INT | | | | | | | |
|--|--|--|----------------|--|--------------|-----------------------------------|--|
| Qualitative record of the utilisation of resources and the effect on the environment | | | | | | | |
| Item | Part of life cycle | Type of energy | Raw materials | | Emissions to | | Effect on ground |
| | | | Renewable | Non-renewable | Water | Air | |
| 1 | Resources | | | | | | |
| 1.1 | Raw materials/Extra materials | Electricity 0,25 kWh/m ² | | EPDM 29% Carb. Black 42% Min.oil 25% | No | Dust | No |
| 1.2 | Additives < 5% of 1.1 | | | Vulc. agent 1% ZnO 1% | No | Dust | No |
| 1.3 | Recycled material | | | Rubber powder | No | Dust | No |
| 1.4 | Parent state for raw materials/additional materials Sweden/EU/The rest of the world | | | | | | |
| 1.5 | Production | Electricity 0,85 kWh/m ² | Cotton textile | Polymer textile | No | TVOC 20mg/m ² | Disposal waste < 20g/m ² |
| 2. | Distribution of product | | | | | | |
| 2.1 | Place of production/Country, Värnamo/Sweden | | | | | | |
| 2.2 | Method of transport, Lorry, Train, Ship | Oil, Diesel, Petrol, Electricity | | | | | |
| 2.3 | Distribution form | Oil, Diesel, Petrol, Electricity | | | | | |
| 2.4 | Packaging | | Wood, paper | Polythene | | | |
| 3 | The building stage | | | | | | |
| 3.1 | Building production | Electricity | No | | No | TVOC | No |
| 3.2 | Building goods adaptation | | | | | | No |
| 4 | The usage stage | | | | | | |
| 4.1 | Use | Not applicable | No | No | No | No | |
| 4.2 | Maintenance | | No | No | No | No | |
| 4.3 | Life span | | | | | | |
| 5 | Demolition | | | | | | |
| 5.1 | Disassembly | | | | | | |
| 6 | Residual products | | | | | | |
| 6.1 | Reusing | | | | | | |
| 6.2 | Recycling | | | | | | |
| 6.3 | Energy recovery | | | | | SO ₂ , CO ₂ | Ash |
| 7 | Waste products | | | | | | |
| 7.1 | Landfill | | | | No | No | No, no restrictions |