Statement of Approval

DNV-GL

Approval No.

WP 1620036 HH

The material described below complies with the applicable requirements as given in the Rules and Regulations of GL. On this basis the material is

approved as

Laminating Resin

for the construction of components provided that the recommendations for use as specified by the producer are observed.

Type

Elan-tech EC 152 Series

Description

Two Component Epoxy Resin System

Producer

ELANTAS Europe S.r.l.

Via Antolini No.1

43044 Collecchio, Parma

Italy

Normative Reference

GL Rules for Classification and Construction,

II - Material and Welding Technology

Part 2 Non-Metallic Materials

This document consists of this page and a one-page annex which is integral part of the approval.

This Statement of Approval is valid until 2017-10-23.

Hamburg, 2016-10-24

DNV GL

Guido Michalek

Joachim Rehbein

DNV-GL

Statement of Approval

ANNEX

Approval No.

WP 1620036 HH

Date:

2016-10-24

Page 1 of 1

Reference Documents

Technical specifications deposited at DNV GL SE, Hamburg.

Assessed Documents

- Technical Data Sheet

Test Report No. B576/14 issued by IMA Dresden, dated on 2015-09-08
Test Report No. B040/16 issued by IMA Dresden, dated on 2016-09-21

- Quality assurance documentation

Fields of Application

Construction of FRP laminates of components, on condition that the fibre

reinforcements comply with the applicable requirements of GL and are compatible to

the resin

Approved Variants

- Epoxy resin system Elan-tech EC152 with following hardener:

- W 152.1 HR - W 152 XLR

Limitations

Any significant changes in design and/or quality of the material

will render the approval invalid.

End of Annex

DNV GL

Statement of Approval

DNV-GL

Approval No.

WP 1620037 HH

The material described below complies with the applicable requirements as given in the Rules and Regulations of GL. On this basis the material is

approved as

Laminating Resin

for the construction of components provided that the recommendations for use as specified by the producer are observed.

Type

Elan-tech EC 157.1 Series

Description

Two Component Epoxy Resin System

Producer

ELANTAS Europe S.r.I.

Via Antolini No.1

43044 Collecchio, Parma

Italy

Normative Reference

GL Rules for Classification and Construction,

II - Material and Welding Technology

Part 2 Non-Metallic Materials

This document consists of this page and a one-page annex which is integral part of the approval.

This Statement of Approval is valid until 2017-10-23.

Hamburg, 2016-10-24

DNV GL

Guido Michalek

Joachim Rehbein

DNV-GL

Statement of Approval

ANNEX

Date:

2016-10-24

Approval No.

WP 1620037 HH

Page 1 of 1

Reference Documents

Technical specifications deposited at DNV GL SE, Hamburg.

Assessed Documents

- Technical Data Sheet

- Test Report No. B576/14 issued by IMA Dresden, dated on 2015-09-08 - Test Report No. B040/16 issued by IMA Dresden, dated on 2016-09-21

- Quality assurance documentation

Fields of Application

Construction of FRP laminates of components, on condition that the fibre

reinforcements comply with the applicable requirements of GL and are compatible to

the resin.

Approved Variants

Epoxy resin system Elan-tech EC 157.1 with following hardener:

- W 152.1 HR - W 152 XLR

Limitations

Any significant changes in design and/or quality of the material

will render the approval invalid.

End of Annex



Statement of Approval

DNV-GL

Approval No.

WP 1640008 HH

The material described below complies with the applicable requirements as given in the Rules and Regulations of GL. On this basis the material is

approved as

Duromeric Adhesive

for the construction of components provided that the recommendations for use as specified by the producer are observed.

Type

Elan-tech AS90 Series

Description

Two Component Epoxy Resin System

Producer

ELANTAS Europe S.r.l.

Via Antolini No.1

43044 Collecchio, Parma

Italy

Normative Reference

GL Rules for Classification and Construction,

II - Material and Welding Technology

Part 2 Non-Metallic Materials

This document consists of this page and a one-page annex which is integral part of the approval.

This Statement of Approval is valid until 2017-10-23.

Hamburg, 2016-10-24

DNV GI

Guido Michalek

Joachim Rehbein

DNV-GL

Statement of Approval

ANNEX

Date:

2016-10-24

Approval No.

WP 1640008 HH

Page 1 of 1

Reference Documents

Technical specifications deposited at DNV GL SE, Hamburg.

Assessed Documents

- Technical Data Sheet

Test Report No. B576/14 issued by IMA Dresden, dated on 2015-09-08Test Report No. B040/16 issued by IMA Dresden, dated on 2016-09-21

- Quality assurance documentation

Fields of Application

Joining of components on condition that the adhesive material is compatible to the

base materials and the applicable requirements of GL are met.

Approved Variants

Epoxy resin system Elan-tech AS 90 with following hardener:

- AW 91 - AW 93

Limitations

Any significant changes in design and/or quality of the material

will render the approval invalid.

End of Annex

DNV GL