Certificate No:
TAK000025K

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Adhesive

with type designation(s)
SCIGRIP® SG300 Series Methacrylate Adhesives

Issued to
IPS Adhesives Europe Ltd.
Washington, Tyne and Wear, United Kingdom

is found to comply with
DNV class programme DNV-CP-0086 – Type approval – Adhesive systems

Application :

For bonding of steel and fibre reinforced plastics made from polyester, vinyl ester and epoxy.

Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV.

Issued at **Høvik** on **2022-10-06**
This Certificate is valid until **2027-10-05**.
DNV local station: **Manchester**

Approval Engineer: **Gisle Hersvik**

for **DNV**

Gustav Heiberg
Head of Section

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid.
The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to 300,000 USD.

Product description

SCIGRIP® SG300 Series Methacrylate Adhesives, a two-component adhesive system

Cartridges	Adhesive / Activator
SG300 – 05	SG305A / SG605 B
SG300 – 15	SG315A / SG605 B
SG300 – 40	SG340A / SG605 B

For further details please consult manufacturer's Technical Data Sheet: SG300 Series Methacrylate Adhesives

Application/Limitation

The adhesive complies with the applicable requirements of DNV and is compatible to the adherends.

Approved substrates:
- Steel
- Fibre reinforced epoxy
- Fibre reinforced vinyl ester
- Fibre reinforced polyester

Max. lap-shear strength:
- 15.2 MPa (at room temperature)
- 7.4 MPa (at 50°C)

Shear modulus:
- 304 MPa

Bondline thickness:
- The bondline thickness shall be in accordance with manufacturer's recommendations.

Application of the adhesive is to be performed in line with manufacturer's recommendations, ref. Technical Data Sheet for *SG300 Series Methacrylate Adhesives*.

For applications subject to dynamical loads additional testing may be required.

Any significant changes in design and/or quality will render the approval invalid.

Type Approval documentation

Marking of product

Product shall be marked with *manufacturer's name*, *place of production* and *type designation*.

The marking is to be carried out in such a way that it is visible, legible and indelible. The marking of product is to enable traceability to the DNV Type Approval Certificate.

Periodical assessment

The scope of the Periodical Assessment is to verify that the conditions stipulated for the Type Approval is complied with and that no alterations are made to the product design or choice of materials.

Periodical assessments (for Certificate Retention / Certificate Renewal) shall be performed according to DNV-CP-0338.

This certificate is only valid if required Periodical assessments are carried out with satisfactory results. To check the validity of this certificate, please look it up in https://approvalfinder.dnv.com

END OF CERTIFICATE