

Maritime Australia

**Structural Fire Insulation
for Maritime Environments
Request for Information
Hunter Class Frigate Program
[February 2021]**



Maritime Australia Approvals and Authorisations

Role / Title	Name
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Amendment History

Version	Date	Remarks
1	02/2021	Initial Release

Maritime Australia Acronyms and Abbreviations

Acronym	Description
BAEs	BAE Systems Maritime Australia
FTP	Fire Test Procedures
IMO	International Maritime Organisation
RFI	Request for Information
RFP	Request for Proposal
TDS	Technical Data Sheet

Definitions

Term	Definition

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1. Executive overview

Fire safety is of critical importance within the maritime environment due to the large potential of loss of life when any fire event takes hold within the vessel.

A key component of ship outfitting used to combat the effects of fire is the application of fire insulation to the structural boundaries of the internal compartments. Insulation helps to maintain compartmentation in supporting firefighting efforts as well as providing a thermal barrier along compartment boundaries to protect adjacent spaces.

The primary drawback of insulation usage is the trade off that has to be made between the protection required and the space and weight implications of adding insulation. Due to the sensitivities to these characteristics, it is important to select insulation that provides a greater level of protection while maintaining a low weight and minimal thickness.

BAE Systems Maritime Australia (BAEs) is issuing a Request for Information (RFI) from Australian industry for the specification and supply of Structural Fire Insulation capable of operating within a maritime environment while maintaining a low weight, superior performance and a small thickness.

It is expected that the suppliers product will be capable of supporting the growing Shipbuilding industry in providing key products that meet the requirements of the program summarised by the Functional and Technical requirements within this RFI.

Supplier responses to the RFI are to be submitted to BAEs via ICN Gateway.

Suppliers please note that the closing date and time for response to this RFI is Monday 15th March 2021.

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2. General information

BAEs seeks information specific to this RFI from Australian industry for the purpose of understanding potential future needs for a compliant, low weight and thin structural fire insulation.

Upon receipt and review of the submissions to this RFI, and subsequently, where BAEs determines the need for engagement on a suitable product, a Request for Proposal (RFP) will be issued to those down-selected supplier/s. Therefore, the quality and accuracy of your response to this RFI will be used by BAEs to evaluate and inform business decisions.

In consideration of your response to this RFI, BAEs will base its evaluation of your response on the functional, technical or other express requirements stated in this RFI.

It is the suppliers responsibility to ask questions or request clarification if any aspect of the RFI is unclear.

BAEs reserves the right to withdraw this RFI and discontinue the process at its own discretion.

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3. Request for information

The purpose of this RFI is to identify what, if any, compliant, low weight and thin structural fire insulation is available within the Australian market, that would suit the needs of the maritime industry.

The objective of this RFI is to then identify a list of products and suppliers that that can meet, or work to meet, the needs of BAEs in supporting marine platform firefighting capabilities while not degrading performance.

In supplying a response to this RFI, suppliers are requested to provide in their response the following:

- Testing evidence where appropriate that shows methodology used to qualify their product.
- Proposed qualification effort on certifying or gaining accreditation for any insulation product where appropriate.
- Relevant performance or technical data including a general part breakdown where appropriate
- Product support information related to the supplier, the manufacturer and distribution ability for the product within Australia.

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4. RFI specifications

The following attributes are required of the supplier to enable BAEs to further consider your response to the RFI.

BAEs will give preference to any submission that can provide a thin and lightweight solution that can meet the requirements detailed below.

Functional requirements

- Supplier must be accredited to, or able to achieve ISO9001:2015.
- Insulation should be suitable to either A class or N class, and suit both bulkhead and deckhead structures.
- The proposed insulation solution should be lighter weight than comparable Class 30 and 60 insulation products.
- The proposed insulation solution should aim to be thinner weight than comparable Class 30 and 60 insulation products.
 - As a guide to the thickness, the below can be considered standard.

	A30 Insulation	A60 Insulation	N30 Insulation	N60 Insulation
Thickness (mm)	40	60	52.8	80.2

- Demonstrable shock capability similar to the requirements of MIL-S-901D
- Proven testing with combatting hydrocarbon fires
- Material can easily be cut to size
- Material is flexible enough to be wrapped around various structural elements
- Construction and defined application methods are capable of preventing the passage of smoke and flame after a 1 hour fire test.
- Awareness or certification to Lloyd's Rules for Ship building for fire safety.

4.1. Technical requirements

- Awareness of or compliance to the requirements of DEF(AUST)5000 Vol 7, Part 2 for A Class and N Class insulation including the temperature/time requirements
- Material should ideally be non-combustible to International Maritime Organisation (IMO) Fire Test Procedures (FTP) Part 1 and also satisfy the temperature/time requirements.
- Fire testing protocol for proposed insulation should be defined by IMO A754(18).

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5. Response format

BAEs requests that supplier responses to this RFI be presented in a brief technical report format. The content of the report should include the presentation of the product, its key features and a technical response to the suitability of the insulation product such that it details how the item meets the requirements referred to in Section 4.

Where direct correlation of the requirements for the presented product is not yet possible through lack of empirical evidence, a proposal should be added to discuss how this could be achieved.

Where appropriate, responses should be accompanied by a Technical Data Sheet (TDS) and any certification documentation relevant to the product.

All responses should be submitted to the ICN Gateway portal.

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6. Required supplier information

- I. Provide full details of previous major defence, maritime or commercial projects in which your company has delivered castings.
- II. Do you have previous experience supplying castings?
- III. What State/s do you have these capabilities in?
- IV. Have you worked on defence contracts before?
- V. Provide details of the company's management organisation structure.
- VI. Are you an Australian-owned company?
- VII. Are you an Indigenous company?
- VIII. Please provide the number of Indigenous/Aboriginal/Torres Strait Islander employees your organisation has? (Stipulate Full Time and Part Time)
- IX. State acquired company certification and accreditations.
- X. Stipulate any further competitive discriminators that have not been identified in the answers to previous questions.
- XI. Have you updated your ICN company profile with the your trading name, contact details, website, ABN, number of employees, annual turnover, export details (if applicable) and ANZSIC codes? This information will be used in assessing this RFI.
- XII. Do you have quality system accreditation under ISO 9001:2015?

7. Closing date for RFI

This RFI will close at midnight Friday 15th March 2021.

8. Contact details

Please direct any questions or further clarifications you may have to Daniel Bettcher (Senior Mechanical Engineer) daniel.bettcher@baesystems.com 08 8480 7420.