
**Ships and marine technology —
Specification of high manganese
austenitic steel thin strips used for
LNG tanks on board ships**

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Foreword

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The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2. www.iso.org/directives.

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This document was prepared by Technical Committee ISO/TC 8, *Ships and marine technology*, Subcommittee SC 8, *Ship design*.

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Introduction

There have been several requirements regarding metallic materials for cryogenic applications since the adoption of the IGC and IGF Codes. Recently, a new high manganese austenitic steel has been proposed for thick plates and piping systems of LNG carriers and LNG-fuelled ships^[2]. However, only plates with a thickness ranging from 6 mm to 30 mm are specified and the target tank capacity is limited to 30 000 m³.

This document covers a newly developed high manganese austenitic steel for thin strip application. This steel has mechanical properties comparable or even higher than those of materials for cryogenic service listed in both the IGC Code^[3] and IGF Code^[4], with good weldability and good resistance to atmospheric corrosion. Consequently, this high manganese austenitic steel is intended to satisfy the strength requirements of the structure of cargo tanks and fuel tanks of LNG carriers and LNG-fuelled ships.

This document provides a standard specification of high manganese austenitic steel for thin strip applications for material suppliers, ship owners, ship yards, manufacturers and shipping companies with regard to producing, purchasing, and using such materials.

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