



**SLOVENSKI STANDARD**  
**SIST-TS CEN ISO/TS 35105:2020**

**01-januar-2020**

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**Industrija za predelavo nafte in zemeljskega plina - Obratovanje v arktičnem okolju  
- Zahteve za materiale za obratovanje v arktičnem okolju (ISO/TS 35105:2018)**

Petroleum and natural gas industries - Arctic operations - Material requirements for arctic operations (ISO/TS 35105:2018)

Erdöl- und Erdgasindustrie - Arktisbetrieb - Werkstoffanforderungen für den Arktisbetrieb (ISO/TS 35105:2018)

Industries du pétrole et du gaz naturel - Opérations en Arctique - Exigences applicables aux matériaux pour les opérations en Arctique (ISO/TS 35105:2018)

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**Ta slovenski standard je istoveten z: CEN ISO/TS 35105:2019**

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**ICS:**

75.020	Pridobivanje in predelava nafte in zemeljskega plina	Extraction and processing of petroleum and natural gas
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**SIST-TS CEN ISO/TS 35105:2020**

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**CEN ISO/TS 35105**

October 2019

ICS 75.020

English Version

**Petroleum and natural gas industries - Arctic operations -  
Material requirements for arctic operations (ISO/TS  
35105:2018)**

Industries du pétrole et du gaz naturel - Opérations en  
Arctique - Exigences applicables aux matériaux pour  
les opérations en Arctique (ISO/TS 35105:2018)

Erdöl- und Erdgasindustrie - Arktisbetrieb -  
Werkstoffanforderungen für den Arktisbetrieb (ISO/TS  
35105:2018)

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<b>Contents</b>	<b>Page</b>
<b>European foreword.....</b>	<b>3</b>

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[SIST-TS CEN ISO/TS 35105:2020](https://standards.iteh.ai/catalog/standards/sist/e496e5e1-5d41-416f-a369-46a891c0c91a/sist-ts-cen-iso-ts-35105-2020)  
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## European foreword

The text of ISO/TS 35105:2018 has been prepared by Technical Committee ISO/TC 67 "Materials, equipment and offshore structures for petroleum, petrochemical and natural gas industries" of the International Organization for Standardization (ISO) and has been taken over as CEN ISO/TS 35105:2019 by Technical Committee CEN/TC 12 "Materials, equipment and offshore structures for petroleum, petrochemical and natural gas industries" the secretariat of which is held by NEN.

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**Petroleum and natural gas  
industries — Arctic operations —  
Material requirements for arctic  
operations**

*Industries du pétrole et du gaz naturel — Opérations en Arctique —  
Exigences relatives au matériel requis pour les opérations en Arctique*

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# Contents

Page

<b>Foreword</b> .....	<b>v</b>
<b>Introduction</b> .....	<b>vi</b>
<b>1 Scope</b> .....	<b>1</b>
<b>2 Normative references</b> .....	<b>1</b>
<b>3 Terms and definitions</b> .....	<b>2</b>
<b>4 Abbreviated terms</b> .....	<b>2</b>
<b>5 Symbols</b> .....	<b>3</b>
<b>6 Technical basis</b> .....	<b>3</b>
6.1 Design considerations.....	3
6.1.1 Present applications and industrial achievements.....	3
6.1.2 Developments for future applications.....	4
6.1.3 Areas of concern in design for Arctic structures.....	4
6.1.4 Fracture assessment.....	4
6.2 Effects of low temperatures on mechanical properties of steels.....	5
6.2.1 Tensile properties.....	5
6.2.2 Fracture toughness.....	8
6.2.3 Arrest toughness.....	9
6.2.4 Fatigue.....	10
6.2.5 Residual stresses and crack pattern.....	11
6.3 Environmental conditions.....	11
6.3.1 General.....	11
6.3.2 Temperature and definition of LAST.....	11
6.3.3 Seawater conditions.....	12
6.4 Principles for qualification and quality assurance.....	12
6.4.1 Steel making technology.....	12
6.4.2 Welding technology.....	12
<b>7 Material and fabrication requirements</b> .....	<b>12</b>
7.1 Material selection and qualification.....	12
7.2 Mechanical properties.....	13
7.2.1 Tensile properties.....	13
7.2.2 Fracture toughness.....	13
7.2.3 Pre-qualification testing.....	16
7.3 Crack arrest assessment.....	16
7.4 Fatigue properties, alternative testing.....	17
7.5 Welding and fabrication requirements.....	18
7.5.1 Contractor certification.....	18
7.5.2 Base material.....	18
7.5.3 Welding consumables.....	18
7.5.4 Welding procedure qualification.....	18
7.6 Welding procedure qualification test requirements.....	18
7.6.1 General requirements.....	18
7.6.2 Welding procedure qualification testing.....	18
7.6.3 Testing requirements.....	19
7.6.4 Fillet weld on plates.....	20
7.7 Protection against corrosion and wear.....	20
7.7.1 General.....	20
7.7.2 Corrosion protecting coating at low temperature.....	20
7.7.3 Cathodic protection (CP).....	20
<b>8 Quality control, quality assurance and documentation</b> .....	<b>21</b>
8.1 Structural steel requirements.....	21
8.2 Welding and fabrication requirements.....	21

## ISO/TS 35105:2018(E)

<b>9</b>	<b>Operational topics</b> .....	<b>21</b>
9.1	Requirements for operations in remote areas.....	21
9.1.1	General.....	21
9.1.2	Low temperature operations.....	21
9.1.3	Ice and snow removal.....	22
9.2	Corrosion and wear control.....	22
9.2.1	General.....	22
9.2.2	Splash zone surfaces in direct contact with sea ice.....	22
9.2.3	Submerged surfaces and cathodic protection.....	22
9.2.4	Topside surfaces.....	23
	<b>Bibliography</b> .....	<b>24</b>

## iTeh STANDARD PREVIEW (standards.iteh.ai)

[SIST-TS CEN ISO/TS 35105:2020](https://standards.iteh.ai/catalog/standards/sist/e496e5e1-5d41-416f-a369-46a891c0c91a/sist-ts-cen-iso-ts-35105-2020)

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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 (see [www.iso.org/directives](http://www.iso.org/directives)).

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This document was prepared by Technical Committee ISO/TC 67, *Materials, equipment and offshore structures for petroleum, petrochemical and natural gas industries*, Subcommittee SC 8, *Arctic operations*.

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**ISO/TS 35105:2018(E)****Introduction**

Operations in an Arctic environment are characterized by low ambient temperatures, the presence of sea ice and ice bergs and icing of structures and components. In many cases they are also associated with remote locations relative to infrastructure and logistics. Maintenance operations are therefore expensive and accidents leading to emissions can have severe environmental consequences.

Structural failure is in most cases failure of materials and caused by well-known degradation mechanisms such as fatigue and corrosion. Under Arctic conditions, failure due to possible brittle materials behaviour needs to be given special consideration.

This document was developed to bridge the gap between the functional requirements to offshore structures in Arctic environments given in design standards and the material requirements given in material and fabrication specifications where Arctic operating conditions have not been considered in sufficient detail.

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