

	Hliník a zliatiny hliníka - Mechanický potenciál zliatin Al-Si na vysokotlaké, nízkotlaké a gravitačné liatie.	TNI CEN/TR 16748
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Aluminium and aluminium alloys - Mechanical potential of Al-Si alloys for high pressure, low pressure and gravity die casting

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Aluminium and aluminium alloys - Mechanical potential of Al-Si
alloys for high pressure, low pressure and gravity die casting

Aluminium et alliages d'aluminium - Potentiel mécanique
des alliages Al-Si coulés sous pression et dans des moules
permanents pour moulage par gravité et basse pression

Aluminium und Aluminiumlegierungen - Potential der
mechanischen Eigenschaften von AlSi-Legierungen für
Druckguss, Niederdruckguss und Schwerkraftkokillenguss

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Foreword

This document (CEN/TR 16748:2014) has been prepared by Technical Committee CEN/TC 132 "Aluminium and aluminium alloys", the secretariat of which is held by AFNOR.

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1 Scope

This Technical Report presents the characteristics of reference dies and reference castings, to be used for evaluating the mechanical potential (in terms of Ultimate Tensile Strength, Yield Strength and Elongation) which can be expected by Al-Si based alloys, cast by high pressure, low pressure and gravity (permanent mould) processes. These properties are measured on separately cast test specimens produced with state-of-the-art knowledge on die design, process management and alloy treatments correctly applied to minimize defects and imperfections.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 1559-1, *Founding - Technical conditions of delivery - Part 1: General*

EN 1559-4, *Founding - Technical conditions of delivery - Part 4: Additional requirements for aluminium alloy castings*

EN 1676, *Aluminium and aluminium alloys - Alloyed ingots for remelting - Specifications*

EN 1706, *Aluminium and aluminium alloys - Castings - Chemical composition and mechanical properties*

EN 12258-1:2012, *Aluminium and aluminium alloys - Terms and definitions - Part 1: General terms*

EN ISO 6892-1, *Metallic materials - Tensile testing - Part 1: Method of test at room temperature (ISO 6892-1)*

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