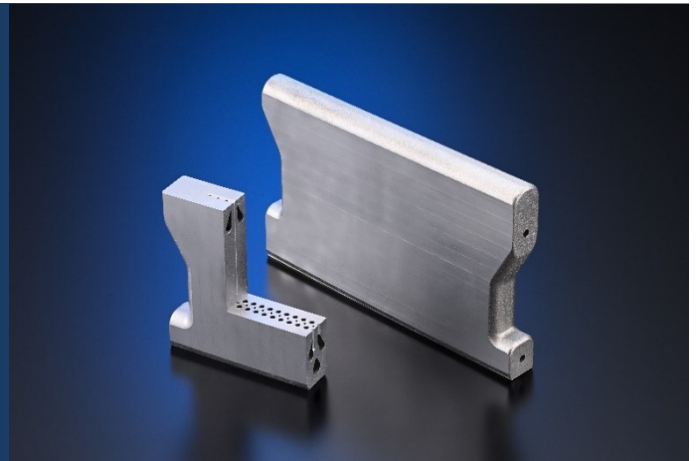


水素環境向け積層造形材料

Alloy development for additively manufactured parts in hydrogen facilities

水素脆化に耐性のある高強度積層造形材を開発することで
高圧水素ガス設備の高効率化に貢献します。

High-strength additively manufactured alloy with less hydrogen embrittlement susceptibility is under development for efficient high-pressure hydrogen gas facilities.



概要 Overview

積層造形の特性を生かす新高強度合金

ADMUSTER® C02Pを開発

New high-strength alloy "ADMUSTER® C02P" realized by additive manufacturing

高圧水素環境で用いる高強度材として開発中

Under development as a high-strength alloys to be used in high-pressure hydrogen environment

特徴 Feature

・ニッケル基超合金同等の機械特性

Mechanical properties comparable to nickel-based superalloys.

・広い温度範囲での優れた強度・延性

Improved elongation in wide temperature range.

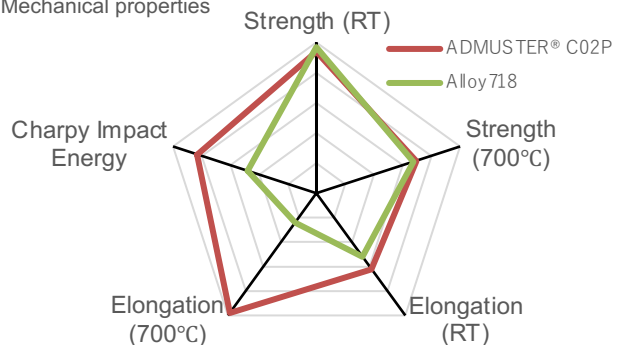
・従来のニッケル基超合金(Alloy718)

に比べて水素脆性を低減

Hydrogen embrittlement susceptibility reduction compared with nickel-based superalloy Alloy718.

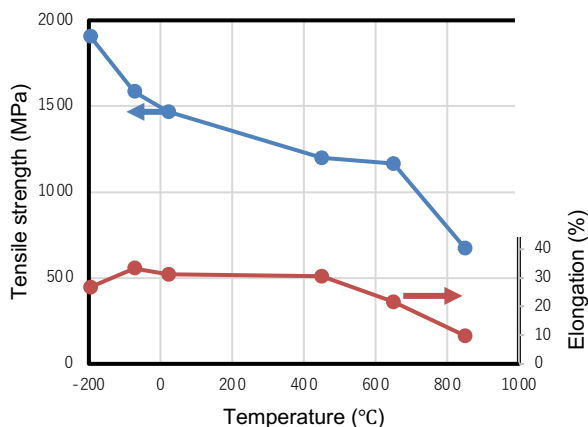
機械特性の比較

Mechanical properties



ADMUSTER® C02Pの機械特性の温度依存性

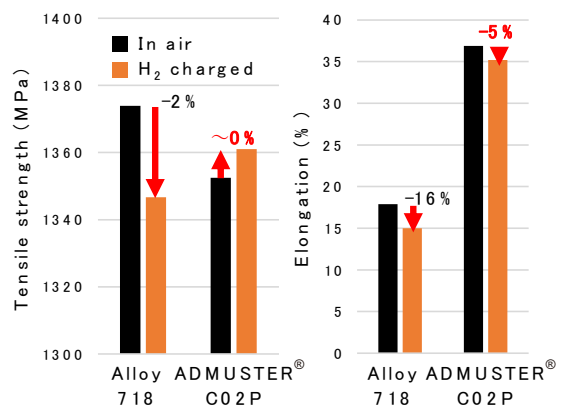
Temperature dependence of ADMUSTER® C02P mechanical properties



水素脆化の評価

Hydrogen embrittlement susceptibility test

※試験法: 陰極チャージ法



問合せ窓口

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