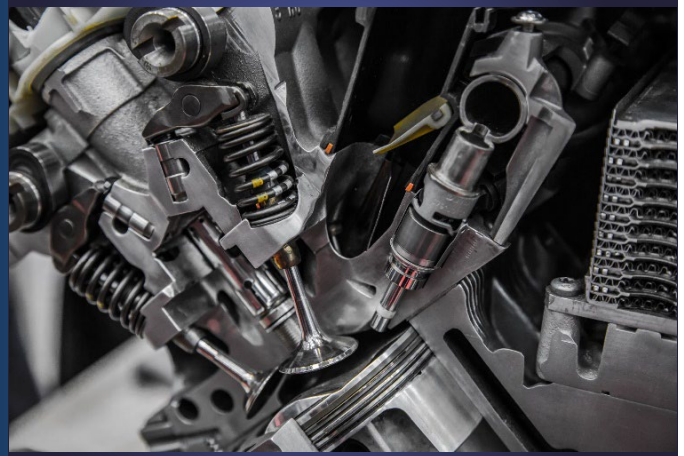


高耐食・水素耐性マルテンサイト鋼 ACD[®]602, ACD[®]627

Corrosion and hydrogen resistant martensitic stainless steels
ACDTM602, ACDTM627

高い硬さと優れた耐食性、耐水素脆性を併せ持ち、各種腐食環境や高圧水素中において部品の長寿命化を実現

It is possible to extend the life of parts in various corrosive environment and high-pressure hydrogen, by taking advantage of high hardness and resistance to corrosion and hydrogen embrittlement.



概要 Overview

ACD[®]602, ACD[®]627は当社独自のマルテンサイト系ステンレス鋼であり、窒化焼入れにより高い表面硬さと耐食性が得られます。また、高圧水素中でも比較的延性低下が小さく、内燃機関部品の長寿命化が期待されます。

ACDTM602 and ACDTM627 obtain high surface hardness and corrosion resistance by nitriding-quenching. They keep their ductility even when exposed to high-pressure hydrogen. Such characteristics contribute to extend the life of ICE parts compared with common martensitic stainless steels.

用途
Applications

・内燃機関部品
ICE parts

特徴 Feature

表面硬さおよび内部硬さ

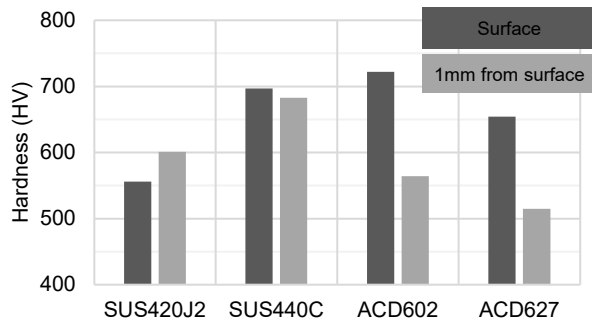
Surface hardness and internal hardness

■表面硬さはSUS420J2より高い

ACD602 and ACD627 show higher surface hardness than SUS420J2.

■ACD602の表面硬さは700HV以上

The surface hardness of ACD602 is more than 700HV.

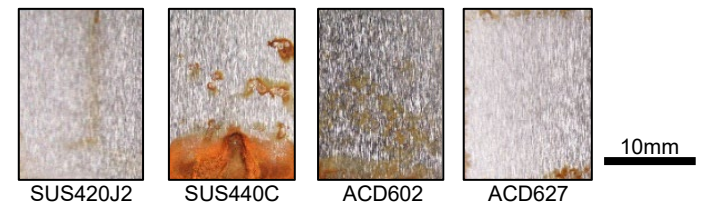


塩水噴霧試験 (5%塩水, 35°C, 96h)

Salt spray test (5%NaCl, 35°C/96h)

■赤錆の発生はSUS420J2対比で同等

ACD602 and ACD 627 show almost equivalent rusting ratio in area to SUS420J.

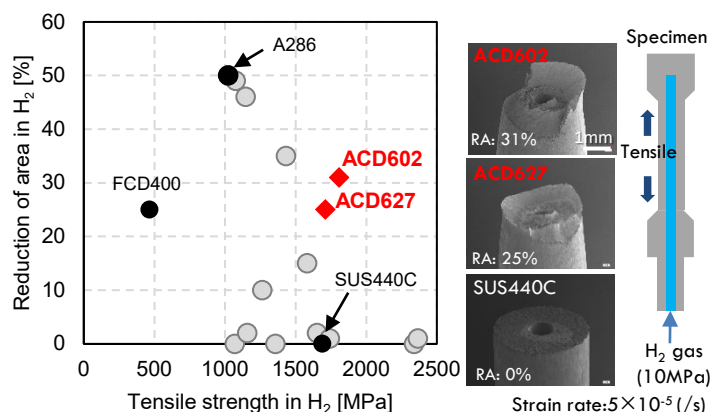


耐水素脆性

Resistance to hydrogen embrittlement

■ACD602とACD627は10MPa水素雰囲気中において高い引張強さと延性を兼ね備えています。特にACD602は引張強さ1800MPaでありながら30%以上の絞り値を示します。

ACD602 and ACD627 achieve both high tensile strength and good ductility in 10MPa of hydrogen. Please note that ACD602 exhibits high hydrogen resistance with 1800MPa of tensile strength and more than 30% of RA.



耐酸性

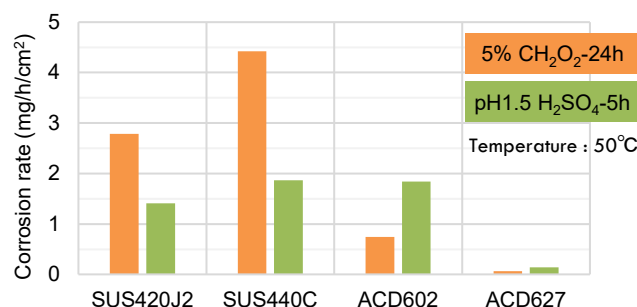
Corrosion resistance

■5%硝酸: ACD627の腐食速度はSUS420J2対比1/20

5% CH₃NO₂: ACD627 shows 1/20 of corrosion rate compared with SUS420J2.

■pH1.5硫酸: ACD627の腐食速度はSUS420J2対比1/9

pH1.5 H₂SO₄: ACD627 shows 1/9 of corrosion rate compared with SUS420J2.



問合せ窓口
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