

金属材料の耐食表

本表は、当社の耐食材料選定の目安を示すものです。温度等の条件により各材料の耐食性は変化致しますので、選定にあたっては可能な限り詳しい流体の状況の提示をお願いいたします。(流体の濃度、温度等による各材料の耐食性変化の文献としては、平成元年発行 改定・化学装置材料耐食表〔化学工業社〕がありますので材料選定の際は参考にして下さい。)

材料	FC200	SCPH2	SUS304 SCS13A	SUS316 SCS14A	モネル®	ニッケル	アロイ 20	ハステ ロイ®B	ハステ ロイ®C	チタン	ジルコ ニウム	タンタル
酢酸(相)	▲	▲	●	●	●	▲	▲	●	●	●	●	●
酢酸(精)	×	×	●	●	●	▲	●	●	●	●	●	●
酢酸(ペーバー)	×	×	●	●	▲	●	●	●	●	●	●	●
酢酸(無水)	▲	●	●	●	●	●	●	●	●	●	●	●
アセトン	●	●	●	●	●	●	●	●	●	●	●	●
アセチレン	●	●	●	●	●	●	●	●	●	●	●	●
アルコール	●	●	●	●	●	●	●	●	●	●	●	●
硫酸アルミニウム	▲	×	●	●	●	●	●	●	●	●	●	●
アンモニウムガス	●	●	●	●	●	●	●	●	●	●	●	●
塩化アンモニウム	●	▲	▲	▲	●	●	●	●	●	●	●	●
水酸化アンモニウム	●	●	●	●	▲	●	●	●	●	●	●	●
硝酸アンモニウム	▲	●	●	●	▲	▲	×	●	●	●	●	●
炭酸アンモニウム(1種)	●	×	●	●	▲	●	●	●	●	●	●	●
炭酸アンモニウム(2種)	●	▲	●	●	▲	●	●	●	●	●	●	●
炭酸アンモニウム(3種)	●	●	●	●	●	●	●	●	●	●	●	●
硫酸アンモニウム	●	●	▲	▲	●	●	●	▲	●	●	●	●
アスファルト	●	●	●	●	●	●	●	●	●	●	●	●
ベンゼンまたはベンゾール	●	●	●	●	●	●	●	●	●	●	●	●
ベンジン	●	●	●	●	●	●	●	●	●	●	●	●
硼砂	●	●	●	●	●	●	●	●	●	●	●	●
硼酸	▲	×	●	●	●	●	●	●	●	●	●	●
ブタン・ブチレン	●	●	▲	●	●	●	●	●	●	●	●	●
酸性亜硫酸カルシウム	×	×	●	●	×	×	●	●	●	●	●	●
塩化カルシウム	●	●	×	▲	▲	▲	●	●	●	●	●	●
漂白粉	▲	▲	●	●	▲	▲	×	●	●	●	●	●
石灰またはフェノール	▲	▲	●	●	●	●	●	●	●	●	●	●
炭酸ガス(乾)	●	●	●	●	●	●	●	●	●	●	●	●
炭酸ガス(湿)	●	●	●	●	●	●	●	●	●	●	●	●
二硫化炭素	●	●	●	●	▲	●	●	●	●	●	●	●
石炭酸	×	×	●	●	●	●	●	●	●	●	●	●
四塩化炭素	●	●	●	●	●	●	●	●	●	●	●	●
塩素(乾)	●	●	●	●	●	●	×	●	●	●	●	●
塩素(湿)	×	×	×	×	×	×	×	▲	×	×	●	●
無水クロム酸	●	●	×	●	▲	▲	×	●	●	●	●	●
クエン酸	▲	×	●	●	▲	▲	●	●	●	●	●	●
石炭ガス	●	●	●	●	▲	●	●	●	●	●	●	●
硫酸銅	▲	×	●	●	●	▲	●	●	●	●	●	●
綿実油	●	●	●	●	●	●	●	●	●	●	●	●
クレオソート(相)	●	●	●	●	●	●	●	●	●	●	●	●
エーテル	●	●	●	●	●	●	●	●	●	●	●	●
エチレングリコール	●	●	●	●	●	●	●	●	●	●	●	●
塩化第二鉄	×	×	×	×	×	×	×	×	●	●	●	●
硫酸第二鉄	×	×	●	●	▲	▲	×	●	●	●	●	●
フォルムアルデヒド	▲	●	●	●	●	●	●	●	●	●	●	●
蟻酸	●	×	▲	▲	●	▲	●	●	●	●	●	●
フレオン(乾)	▲	▲	▲	▲	●	●	●	●	●	●	●	●
フレオン(湿)	●	●	●	●	●	●	●	●	●	●	●	●
フルフラール	●	●	●	●	●	●	●	●	●	●	●	●
ガソリン(酸性)	▲	▲	●	●	▲	▲	●	●	●	●	●	●
ガソリン(精製)	●	●	●	●	●	●	●	●	●	●	●	●
ゼラチン	●	●	●	●	●	●	●	●	●	●	●	●
ブドウ糖	●	●	●	●	●	●	●	●	●	●	●	●
塩酸	×	×	×	×	▲	▲	×	●	▲	●	●	●
靑酸	●	▲	●	●	●	●	●	●	●	●	●	●
弗化水素	×	●	×	×	▲	▲	●	●	●	×	×	×
水素ガス	●	●	●	●	●	●	●	●	●	●	●	●
過酸化水素	×	×	●	●	●	●	●	●	●	●	●	●
硫化水素(乾)	●	●	●	●	▲	▲	●	●	●	●	●	●
硫化水素(湿)	▲	▲	●	●	▲	▲	▲	●	●	●	●	●

●使用可、▲注意して使用(多少の腐食を生じる)、×使用不可

材料	FC200	SCPH2	SUS304 SCS13A	SUS316 SCS14A	モネル®	ニッケル	アロイ 20	ハステ ロイ®B	ハステ ロイ®C	チタン	ジルコ ニウム	タンタル
ラッカー	●	▲	●	●	●	●	●	●	●	●	●	●
硫酸石灰	●	▲	●	●	●	●	●	●	●	●	●	●
塩化マグネシウム	▲	▲	×	▲	●	●	●	●	●	●	●	●
水酸化マグネシウム	●	●	●	●	●	●	●	●	●	●	●	●
硫酸マグネシウム	●	●	●	●	●	●	●	●	●	●	●	●
塩化第二水銀	▲	▲	×	×	▲	▲	▲	×	●	●	●	●
水銀	▲	▲	●	●	▲	▲	●	●	●	●	●	●
牛乳	×	×	●	●	▲	●	●	●	●	●	●	●
天然ガス	●	●	●	●	●	●	●	×	●	●	●	●
塩化ニッケル	●	●	×	●	●	●	▲	×	●	●	●	●
硫酸ニッケル	●	▲	▲	▲	▲	▲	●	●	●	●	●	●
硝酸(相)	●	×	▲	▲	×	×	●	×	●	●	●	●
硝酸(精)	●	×	▲	▲	×	×	●	×	●	●	●	●
オレイン酸	▲	▲	●	●	●	●	●	●	●	●	●	●
石油(精製品)	●	▲	●	●	●	●	●	●	●	●	●	●
燐酸(粗)	●	▲	▲	▲	▲	▲	●	●	●	●	●	●
燐酸(精)	●	▲	▲	▲	▲	▲	▲	●	●	●	●	●
ピクリン酸(溶融時)	●	▲	▲	▲	×	×	●	●	●	●	●	●
塩化カリウム	●	●	●	●	●	●	●	●	●	●	●	●
水酸化カリウム	●	●	▲	▲	●	●	●	●	●	●	●	●
硫酸カリウム	●	●	▲	▲	●	●	●	●	●	●	●	●
プロパンガス	●	●	●	●	●	●	●	●	●	●	●	●
酸性硫酸ナトリウム	▲	×	●	●	●	●	●	●	●	●	●	●
塩化ナトリウム	▲	●	▲	▲	▲	▲	●	●	●	●	●	●
シアニ化ナトリウム	▲	●	▲	▲	▲	▲	●	●	●	●	●	●
苛性ソーダ	●	●	×	▲	▲	▲	×	●	▲	●	●	●
次亜塩素酸ナトリウム	▲	×	×	▲	▲	▲	●	×	●	▲	●	●
メタ硫酸ナトリウム	●	▲	●	●	●	●	●	●	●	●	●	●
硝酸ソーダ	●	●	×	●	●	●	●	×	●	●	●	●
一塩基性燐酸ソーダ	●	▲	▲	▲	●	●	●	●	●	●	●	●
硫酸ナトリウム	●	●	▲	▲	●	●	●	●	●	●	●	●
硫酸ナトリウム	●	●	▲	▲	●	●	●	●	●	●	●	●
硫化ソーダ	●	●	▲	▲	●	●	●	●	●	●	●	●
平方硫酸ソーダ	●	●	▲	▲	●	●	●	●	●	●	●	●
ステアリン酸	▲	▲	●	●	●	●	●	●	●	●	●	●
酸性硫酸液	●	●	●	●	●	●	●	●	●	●	●	●
硫酸	▲	▲	▲	▲	▲	▲	●	●	●	●	●	●
塩化硫黄	●	▲	×	●	●	●	●	●	●	●	●	●
二酸化硫黄(乾)	●	●	●	●	●	●	●	×	●	●	●	●
二酸化硫黄(無水硫酸)	●	●	●	●	●	●	●	×	●	●	●	●
硫酸(98%)	●	●	×	×	×	×	●	●	●	×	▲	●
硫酸(75~95%)	●	●	×	×	×	×	●	●	●	×	▲	●
硫酸(<10%)	▲	▲	▲	▲	▲	▲	●	●	●	▲	●	●
亜硫酸	●	×	▲	▲	×	×	●	×	●	●	●	●
タール	●	●	●	●	●	●	●	●	●	●	●	●
石炭酸	▲	×	▲	▲	●	●	●	●	●	●	●	●
トルエンまたはトルオール	●	●	●	●	●	●	●	●	●	●	●	●
トリクロロエチレン	▲	▲	●	●	●	●	●	●	●	●	●	●
ワニス	▲	▲	●	●	●	●	●	●	●	●	●	●
植物油	●	●	●	●	●	●	●	●	●	●	●	●
酢酸	▲	▲	●	●	●	●	●	●	●	●	●	●
水(硫酸を含む)	▲	▲	●	●	×	×	●	●	●	●	●	●
飲料水	●	●	●	●	●	●	●	●	●	●	●	●
蒸溜水	×	×	●	●	▲	▲	●	●	●	●	●	●
塩水	●	▲	▲	▲	●	●	●	●	●	●	●	●
酒、ウイスキー類	▲	×	●	●	▲	▲	●	●	●	●	●	●
塩化亜鉛	×	×	×	×	●	●	●	×	×	●	●	●
硫酸亜鉛	●	×	●	●	●	●	●	●	●	●	●	●
硫酸	●	●	●	●	●	●	●	●	●	●	●	●
硫酸	●	●	●	●	●	●	●	●	●	●	●	●

●使用可、▲注意して使用(多少の腐食を生じる)、×使用不可