

# HAYNES<sup>®</sup> 242<sup>®</sup> alloy

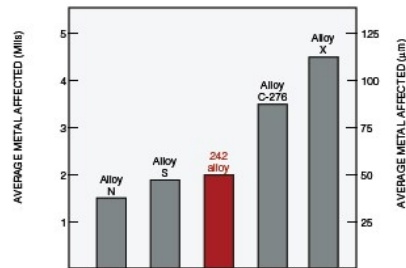
## Resistance to High-temperature Fluoride Environments

Research has shown that materials which have high molybdenum content and low chromium content are generally superior to other materials in resisting high-temperature corrosion in fluorine-containing environments. HAYNES<sup>®</sup> 242<sup>®</sup> alloy is in that category, and displays excellent resistance to both fluoride gas and fluoride salt environments.

### Comparative Resistance to 70% HF at 1670°F (910°C) for 136 Hours

Alloy	Thickness Loss	
	mils	mm
<b>242<sup>®</sup></b>	<b>12.6</b>	<b>0.3</b>
<b>S</b>	15.8	0.4
<b>N</b>	15.8	0.4
<b>625</b>	47.2	1.2
<b>230<sup>®</sup></b>	70.9	1.8
<b>C-22<sup>®</sup></b>	78.7	2.0
<b>600</b>	141.7	3.6

### Comparative Resistance to KCl-KF-NaF Mixed Salts



Samples were exposed to a mixture of KCl-KF-NaF salts for a total of 40 hours in service. Temperature was cycled from 1290 to 1650°F (700-900°C) during the course of the exposure.

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