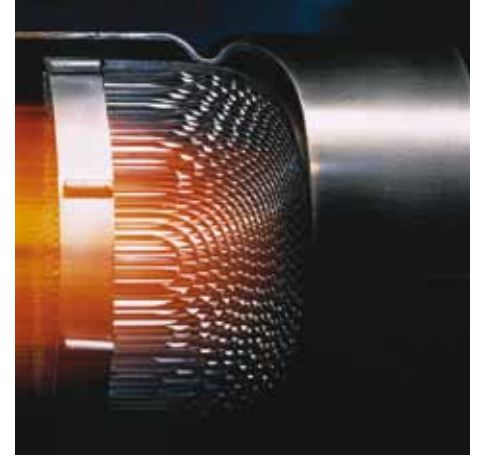
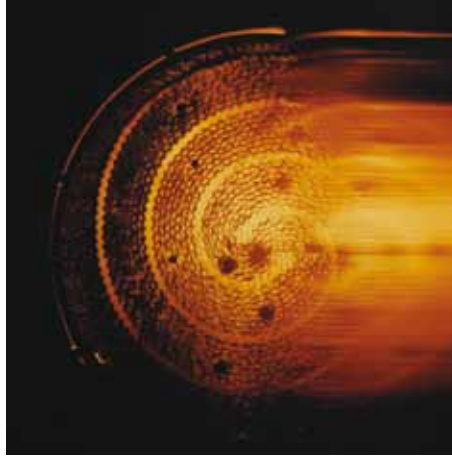


# AL COATED STAINLESS STEEL FOILS

## CrAl-SCR



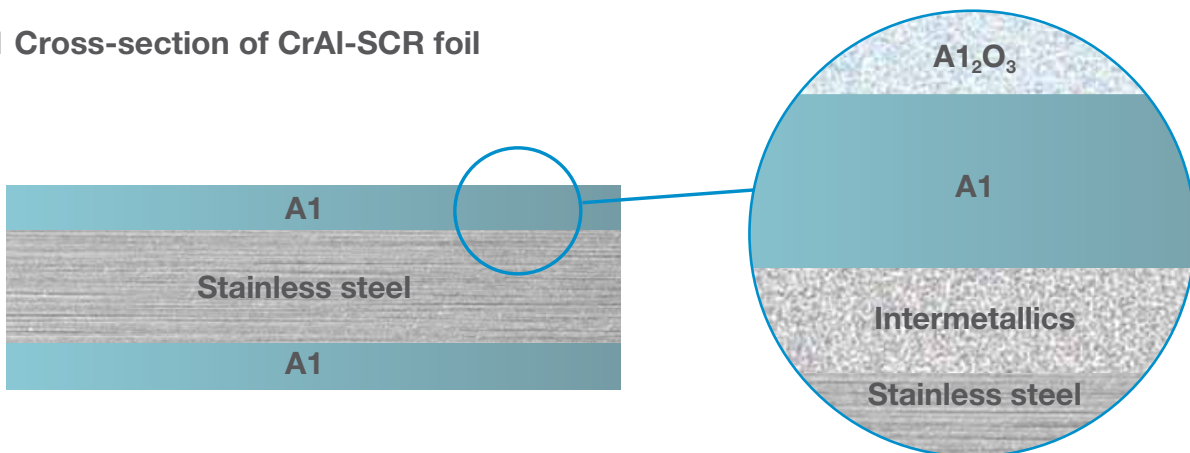
### Technical Information

Al coated stainless steel foil (CrAl-SCR) is an aluminized ferritic chromium steel especially developed for applications as metallic substrate for catalytic converters and diesel particle filters in automotive exhaust systems (Passengers cars, truck, buses, motorcycles, boats as well as non-road machinery etc...).

Due to the dense and strong aluminum oxide layer on the surface the CrAl-SCR foil has a good resistance against oxidation at high temperatures, as well as a high formstability. The characteristic of the CrAl-SCR foil is optimised for strong adhesion for further coatings.



Fig.1 Cross-section of CrAl-SCR foil



### MKM CrAl-SCR foil is characterized by:

- excellent oxidation and corrosion resistance under isothermal and cyclic conditions
- good high-temperature strength
- ease of working and processing as well as coating

**TABLE 1 - DIMENSIONS AND DELIVERY CONDITIONS**

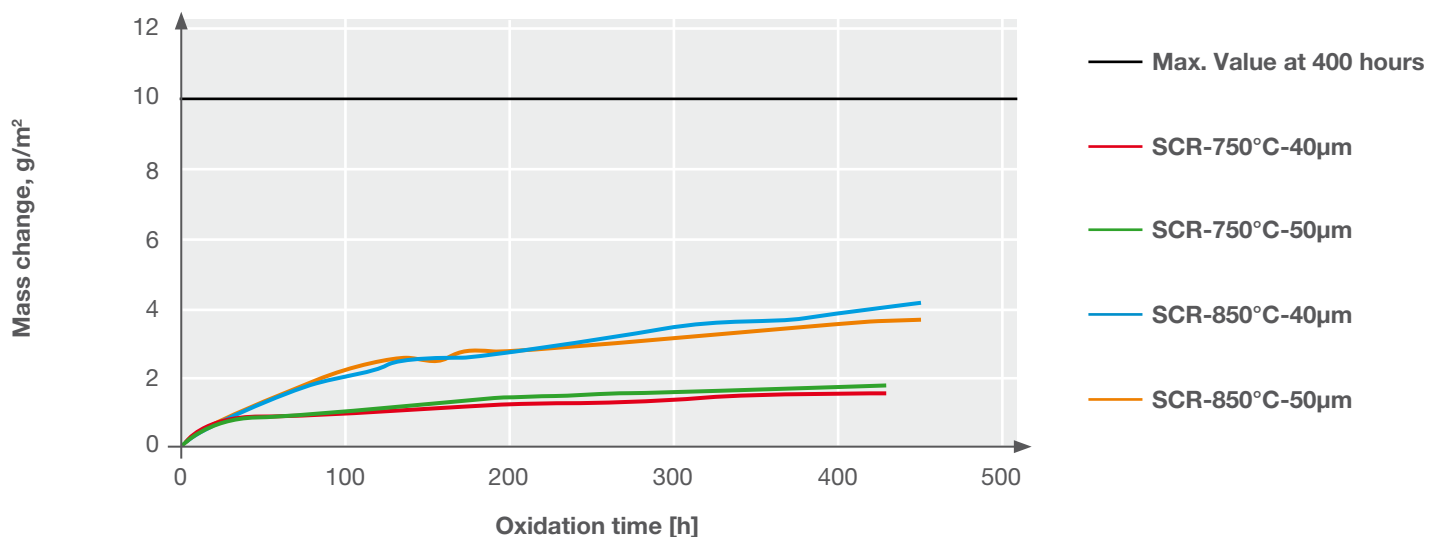
Alloys	Thickness [mm]	Width [mm]	Al-layer Thickness [ $\mu\text{m}$ ]	Delivery conditions
CrAl-SCR	0.020 – 0.100	max. 500	0.4 – 2.0	Cold rolled / Bright-annealed

**TABLE 2 - CHEMICAL COMPOSITION (WT.%)**

Alloys	C	Si	Mn	P	S	Cr	Ti	Nb
CrAl-SCR	$\leq 0.030$	$\leq 1.00$	$\leq 1.00$	$\leq 0.040$	$\leq 0.02$	16.00–20.00	0.1–0.6	0.3–1.0
Surface layer: Al	Al: 87%; Si: 10%; Fe: 3%							

**TABLE 3 - MECHANICAL PROPERTIES AND SURFACE ROUGHNESS (TYPICAL VALUES)**

Condition	Thickness [ $\mu\text{m}$ ]	Yield strength [MPa]	Tensile strength [MPa]	Elongation [%]	Ra $\mu\text{m}$
Cold rolled	50	> 800	< 1,200	< 1.5	0.1–0.3
Bright-annealed	50	> 300	< 700	~ 20	0.2–0.6

**Fig. 2 Temperature oxidation resistance of CrAl-SCR foils at 850°C****OXIDATION RESTANCE (850°C)**

The data contained in this sheet is based on information from our own and other organisations; although every effort has been made to ensure its accuracy, no guarantee or warranty is given or implied as to fitness for specific applications.