

# KM Stainless Steel 304 Chequer Joint Cover



## Material Description

KM Stainless Steel 304 Chequer Joint Cover is designed to provide an attractive and decorative low cost solution to the problem of protecting and concealing expansion joints on floor-to-floor in the structure of a building. KM Stainless Steel 304 Chequer Joint Cover is suitable for use in new or refurbishment projects for floors, for gaps up to 500mm, dependence on its profile.

## Suitable Installation Areas:

- Office Buildings
- Shopping Malls
- Retail Stores
- Schools
- Hospitals
- Hotels
- Residential Buildings
- Leisure Centers
- Industrial Building or Factory
- Warehouses
- Airport Terminals or Rail Terminals



## Compositions:

KM Stainless Steel 304 Chequer Joint Cover is made of Stainless Steel with a variation of the basic 18-8 grade, Type 302, with a higher chromium and lower carbon content. Lower carbon minimizes chromium carbide precipitation due to welding and its susceptibility to inter-granular corrosion.

Component	Wt. %
C	Max 0.08
Cr	18 - 20
Fe	66.345 - 74
Mn	Max 2
Ni	8 - 10.5
P	Max 0.045
S	Max 0.03
Si	Max

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## Chequer Joint Cover



### Material Properties:

<u>Physical Properties</u>	<u>Metric</u>	<u>English</u>	<u>Comments</u>
Density	8 g/cc	0.289 lb/in <sup>3</sup>	
Hardness, Brinell	123	123	Converted from Rockwell B hardness.
Hardness, Knoop	138	138	Converted from Rockwell B hardness.
Hardness, Rockwell B	70	70	
Hardness, Vickers	129	129	Converted from Rockwell B hardness.
Tensile Strength, Ultimate	505 MPa	73200 psi	
Tensile Strength, Yield	215 MPa	31200 psi	at 0.2% offset
Elongation at Break	70 %	70 %	in 50 mm
Modulus of Elasticity	193 - 200 GPa	28000 - 29000 ksi	
Poisson's Ratio	0.29	0.29	
Charpy Impact	325 J	240 ft-lb	
Shear Modulus	86 GPa	12500 ksi	
<b><u>Electrical Properties</u></b>			
Electrical Resistivity	7.2e-005 ohm-cm	7.2e-005 ohm-cm	at 20°C (68°F); 1.16E-04 at 650°C (1200°F)
Magnetic Permeability	1.008	1.008	at RT
<b><u>Thermal Properties</u></b>			
CTE, linear 20°C	17.3 µm/m-°C	9.61 µin/in-°F	from from 0-100°C
CTE, linear 250°C	17.8 µm/m-°C	9.89 µin/in-°F	at 0-315°C (32-600°F)
CTE, linear 500°C	18.7 µm/m-°C	10.4 µin/in-°F	at 0-650°C
Specific Heat Capacity	0.5 J/g-°C	0.12 BTU/lb-°F	from 0-100°C (32-212°F)
Thermal Conductivity	16.2 W/m-K	112 BTU-in/hr-ft <sup>2</sup> -°F	at 0-100°C, 21.5 W/m°C at 500°C
Melting Point	1400 - 1455 °C	2550 - 2650 °F	
Solid	1400 °C	2550 °F	
Liquid	1455 °C	2650 °F	

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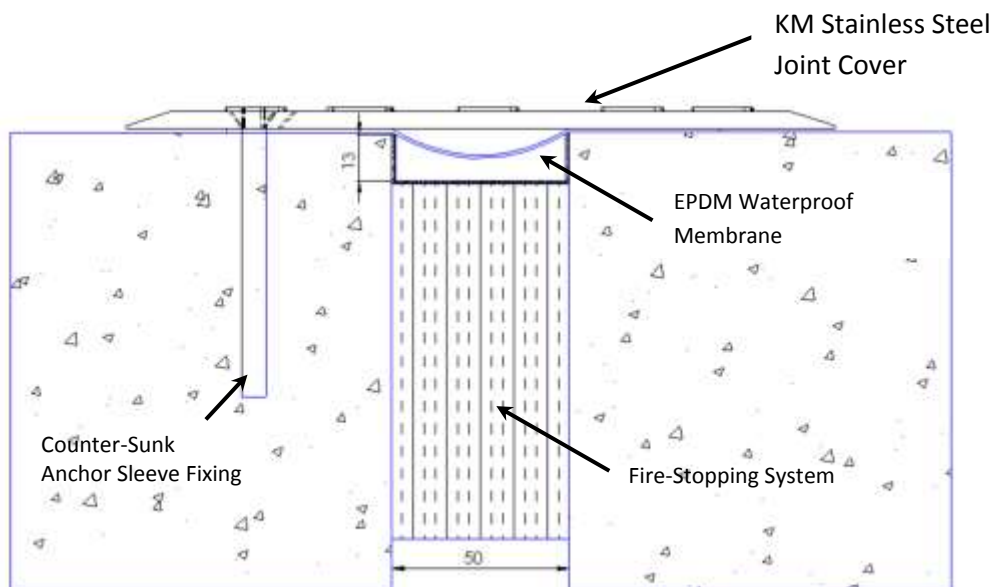


## Resistance to Corrosion:

**KM Stainless Steel 304 Chequer Joint Cover** provides useful resistance to corrosion on a wide range of moderately oxidizing to moderately reducing environments. Its alloys are used widely in equipment and utensils for processing and handling of food, beverages and dairy products; heat exchangers, piping, tanks and other process equipment in contact with fresh water also utilize these alloys; building facades and other architectural and structural applications exposed to non-marine atmospheres. In addition, a large variety of applications involve household and industrial chemicals.

**KM Stainless Steel 304 Chequer Joint Cover** contains 18 to 20 percent of chromium which these alloys contain provides resistance to oxidizing environments such as dilute nitric acid. These alloys are also resistant to moderately aggressive organic acids such as acetic, and reducing acids such as phosphoric. The 8 to 10.5 percent of nickel composition assists in providing resistance to moderately reducing environments. The more highly reducing environments such as boiling dilute hydrochloric and sulfuric acids are shown to be too aggressive for these materials. Boiling 50 percent caustic is likewise too aggressive.

## Typical Installation Detail [Width Span: 200mm]



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Profile Number	EJ304-80	EJ304-100	EJ304-120	EJ304-200	EJ304-300	EJ304-400	EJ304-500	EJ304-600
Width [mm]	80	100	120	200	300	400	500	600
Gap up to [mm]	20	40	60	100	200	300	400	500
Standard Length	1.2-Meter / 2.4-Meter							
Material	Stainless Steel Grade 304							
Load Bearing Capacity								

\* Please consult sales representative for Customized Profiles.