

Kovar Material Composition

Reference: Flat KOVAR lids supplied by VC America

1. Series

LDK1612
LDK2016
LDK2520
LDK3225
LDK5032
LDK5070
LDK9014

2. Chemical Composition by percentage for Fe-Ni-Co KOVAR alloy

C	Si	Mn	Ni	Co	Fe
≤0.02	≤0.3	≤0.5	28-30	16-18	>52

3. Characteristics

a. Coefficient of thermal expansion

Specimens are taken from each molten lot and measured after heat treatment (annealing in H₂): 900°C for 1 hour, 1100°C for 15 minutes and cooled

Temperature °C	Average coefficient of thermal expansion x 10E-7 / K
30 to 400	45.5 – 50.8
30 to 450	50.3 - 53.7

b. Mechanical Properties

Characteristic	Range
Vicker Hardness HV	220-260