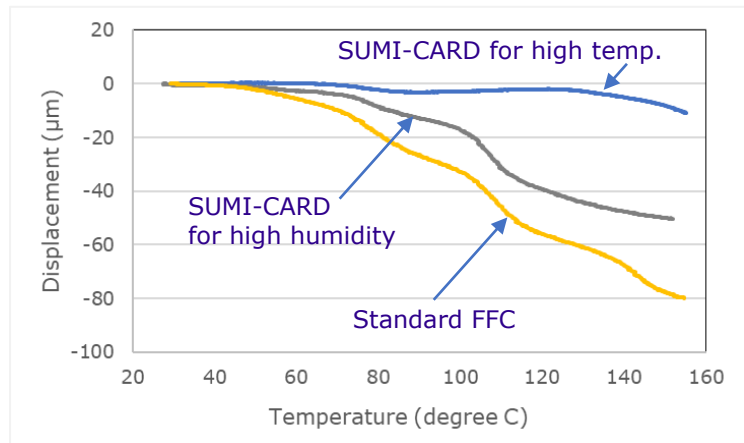


- SUMI-CARD (Flexible Flat Cable) for automotive use

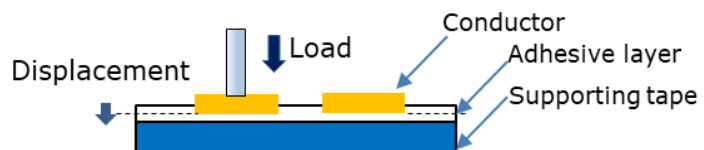
# SUMI-CARD

## Flexible Flat Cable

TMA data (for Connection reliability)



Sample (FFC)



SUMI-CARD for Automotive use

		<b>SUMI-CARD for high humidity</b>	<b>SUMI-CARD for high temperature</b>
UL AWM Style		5462 (UL 105°C 300V) 5465 (UL 105°C 90V)	5556 (UL 125°C 90V)
Insulation material (base/adhesive)		PET/ flame-retardant polyolefin	PPS/ flame-retardant polyester
Properties (Durability)	Heat resistance	105°CX1000h	150°CX1000h
	Humidity resistance	60°C95%RH X1000h 85°C85%RH X1000h	60°C95%RH X1000h 85°C85%RH X1000h
	Heat-shock resistance	(-40°C⇔105°C)X1000	(-40°C⇔150°C)X1000
	Cold resistance	-40°CX1000h	-40°CX1000h

See next page for further information →

- SUMI-CARD (Flexible Flat Cable) for automotive use

# SUMI-CARD

## Flexible Flat Cable

Example of SUMI-CARD



### Advantage



Stability of dimension under high temperature atmosphere



High connection reliability under high temperature atmosphere



High durability under high humid & high temperature atmosphere

### Application



Internal wiring for battery system such as cell module, cell pack and power train system such as inverter, DC/DC converter, on-board charger for electrical vehicle.



Contact person for further information:

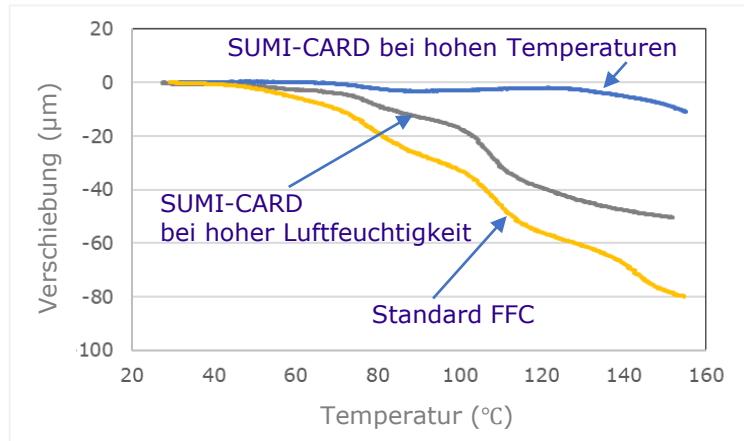
Mr. Hiroshi Yoshimura (SEPE)  
yoshimura-hiroshi@sei.co.jp

- SUMI-CARD (Flexible Flat Cable) für Automotive Anwendungen

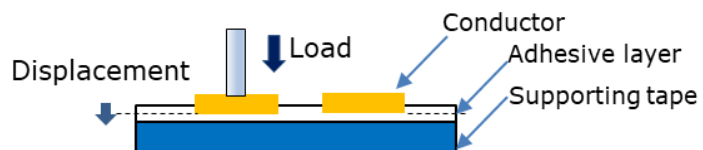
# SUMI-CARD

## Flexible Flat Cable

TMA Daten (Verbindungszuverlässigkeit)



Beispiel (FFC)



## SUMI-CARD Automotive Anwendungen

		SUMI-CARD Hohe Luftfeuchtigkeit	SUMI-CARD Hohe Temperaturen
UL AWM Style		5462 (UL 105°C 300V) 5465 (UL 105°C 90V)	5556 (UL 125°C 90V)
Isoliermaterial (Basis/Klebstoff)		PET/ Flammschutzmittel Polyolefin	PPS/ Flammschutzmittel Polyester
Eigenschaften (Haltbarkeit)	Hitzebeständigkeit	105°CX1000h	150°CX1000h
	Feuchtigkeits- beständigkeit	60°C95%RHX1000h 85°C85%RHX1000h	60°C95%RHX1000h 85°C85%RHX1000h
	Hitzeschock- resistenz	(-40°C⇔105°C)X1000	(-40°C⇔150°C)X1000
	Kältebeständigkeit	-40°CX1000h	-40°CX1000h

Weitere Informationen finden Sie auf der nächsten Seite →

- SUMI-CARD (Flexible Flat Cable)  
für Automotive Anwendungen

# SUMI-CARD

## Flexible Flat Cable

SUMI-CARD Beispiele



### Vorteile



Maßstabilität und  
Verbindungszuverlässigkeit  
bei hohen Temperaturen



Haltbarkeit bei hoher  
Luftfeuchtigkeit und  
hohen Temperaturen

### Anwendungsbereiche



Interne Verkabelung  
für Batteriesysteme  
(z.B. Zell-Modul oder  
Zell-Pack) Power Train Systeme  
(z.B. Inverter, DC/DC Converter,  
On-Board-Charger für  
Elektrofahrzeuge)



**Ansprechpartner für  
weitere Informationen:**

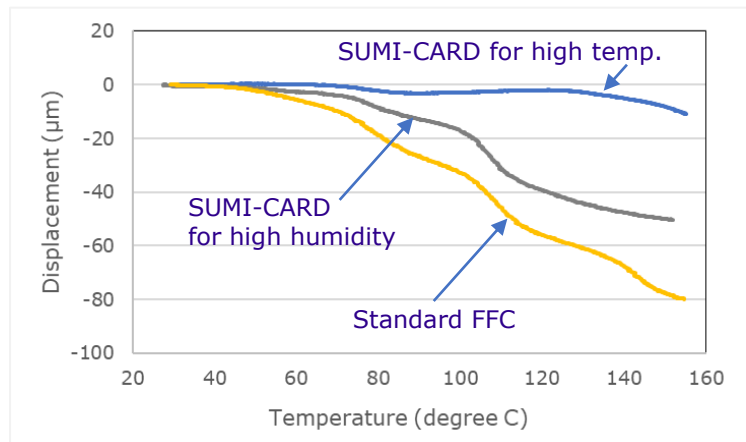
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- SUMI-CARD (Flexible Flat Cable) for automotive use

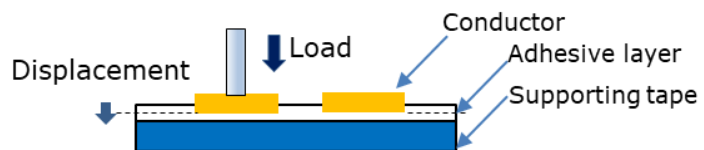
# SUMI-CARD

## Flexible Flat Cable

TMA data (for Connection reliability)



Sample (FFC)



SUMI-CARD for Automotive use

		<b>SUMI-CARD for high humidity</b>	<b>SUMI-CARD for high temperature</b>
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See next page for further information →



- SUMI-CARD (Flexible Flat Cable) for automotive use




# SUMI-CARD

## Flexible Flat Cable

Example of SUMI-CARD



### Advantage

-  Stability of dimension under high temperature atmosphere
-  High connection reliability under high temperature atmosphere
-  High durability under high humid & high temperature atmosphere

### Application



Internal wiring for battery system such as cell module, cell pack and power train system such as inverter, DC/DC convertor, on-board charger for electrical vehicle.

#### Contact person for further information:

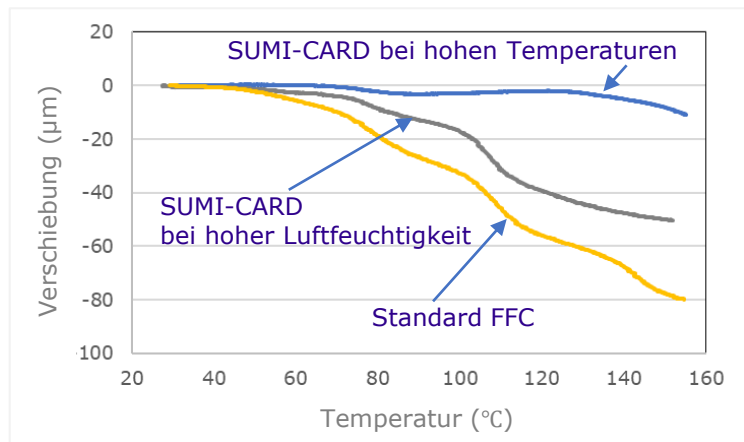
Mr. Hiroshi Yoshimura (SEPE)  
[yoshimura-hiroshi@sei.co.jp](mailto:yoshimura-hiroshi@sei.co.jp)

- SUMI-CARD (Flexible Flat Cable) für Automotive Anwendungen

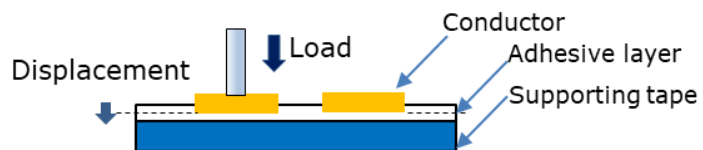
# SUMI-CARD

## Flexible Flat Cable

TMA Daten (Verbindungszuverlässigkeit)



Beispiel (FFC)



## SUMI-CARD Automotive Anwendungen

		<b>SUMI-CARD Hohe Luftfeuchtigkeit</b>	<b>SUMI-CARD Hohe Temperaturen</b>
UL AWM Style		5462 (UL 105°C 300V) 5465 (UL 105°C 90V)	5556 (UL 125°C 90V)
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Eigenschaften (Haltbarkeit)	Hitzebeständigkeit	105°CX1000h	150°CX1000h
	Feuchtigkeits- beständigkeit	60°C95%RH X1000h 85°C85%RH X1000h	60°C95%RH X1000h 85°C85%RH X1000h
	Hitzeschock- resistenz	(-40°C⇔105°C)X1000	(-40°C⇔150°C)X1000
	Kältebeständigkeit	-40°CX1000h	-40°CX1000h

Weitere Informationen finden →  
Sie auf der nächsten Seite

- SUMI-CARD (Flexible Flat Cable) für Automotive Anwendungen

# SUMI-CARD

## Flexible Flat Cable

SUMI-CARD Beispiele



### Vorteile



Maßstabilität und Verbindungszuverlässigkeit bei hohen Temperaturen



Haltbarkeit bei hoher Luftfeuchtigkeit und hohen Temperaturen

### Anwendungsbereiche



Interne Verkabelung für Batteriesysteme (z.B. Zell-Modul oder Zell-Pack) Power Train Systeme (z.B. Inverter, DC/DC Converter, On-Board-Charger für Elektrofahrzeuge)

#### Ansprechpartner für weitere Informationen:

Mr. Hiroshi Yoshimura (SEPE)  
[yoshimura-hiroshi@sei.co.jp](mailto:yoshimura-hiroshi@sei.co.jp)