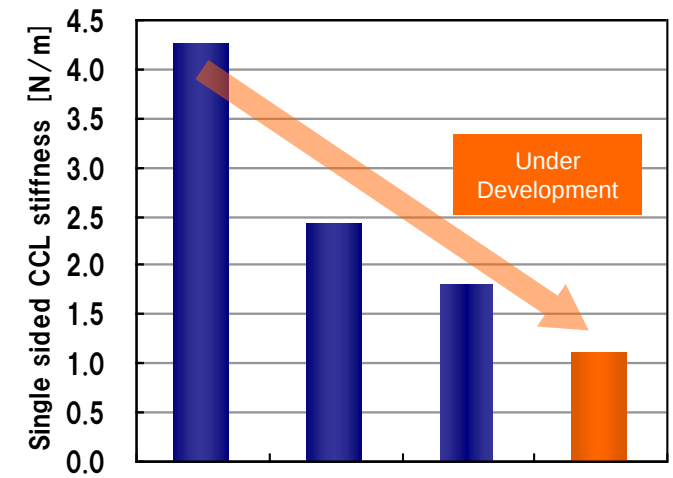
ESPANEX M系列 薄銅箔(9μm ED)・聚醯亞胺薄膜(9μm PI)系列

ESPANEX M series for Flexural Use

9μm PI 可以實現超薄FPC

Excellent Flexibility with 9μm Polyimide

反彈性 Stiffness Property



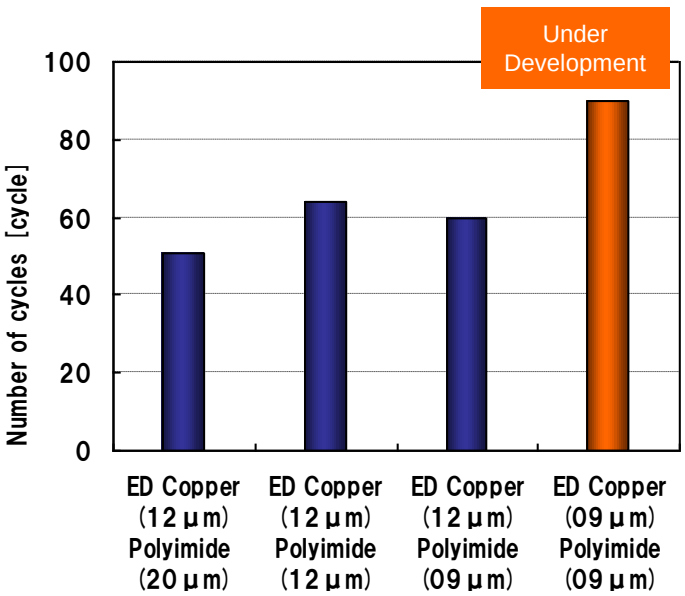
ED Copper	t=12μm	t=12μm	t=12μm	t=09μm
Polyimide	t=20μm	t=12μm	t=09μm	t=09μm

≪ Measurement condition ≫

- Test Sample ： Single sided CCL
- Loop Length = 60mm
- Gap = 15mm
- Sample Width = 12.7mm

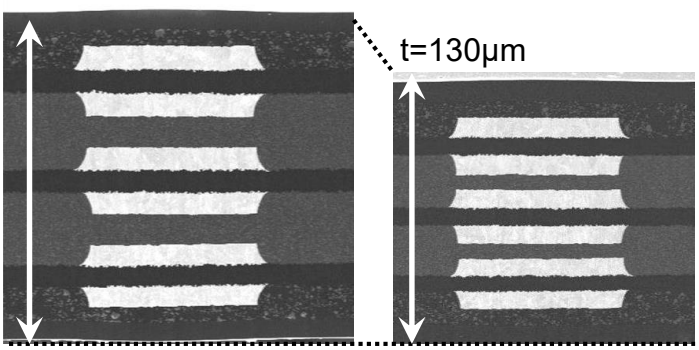
ED Copper
Polyimide

死折耐性 Tolerance Property for Folding Bend



超薄多層板FPC的使用例 Ultrathin Multilayer FPC

t=160μm



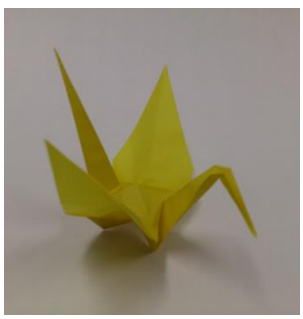
ED Copper t=12μm
Polyimide t=12μm

ED Copper t=9μm
Polyimide t=9μm

又薄又柔的薄膜性 Flexibleness and Toughness

9μm PI 薄膜可以疊成美麗柔軟的花朵，
也可以折疊成鶴，薄膜也不破裂

Folded Flower
In the 9μm PI



Folded Paper Crane
In the 9μm PI

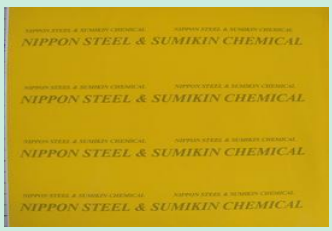
ESPANEX M系列　高透光 低損耗　MB12-25-12UEG

ESPANEX M series for High transparency & Low insertion Loss

MB12-25-12UEG 常規PI Film搭配超低粗度電解銅箔

MB12-25-12UEG Normal PI Film + Low Profile ED Copper

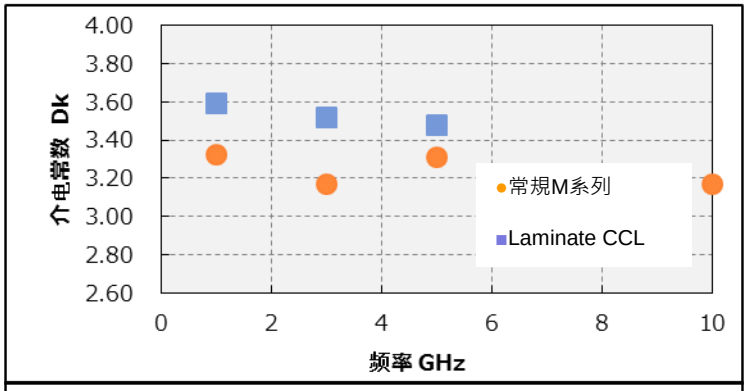
透光性 Transparency

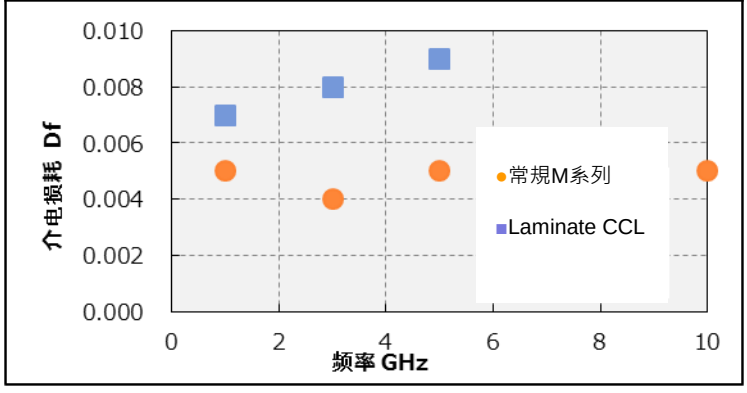
	MB12-25-12UEG	MB12-25-12CEG	Laminate CCL
PI Film 写真				
T.T / %	**78.8**	53.5	49.6
Haze / %	**74.6**	99.2	98.9

測定設備：濁度儀（日本電色工業㈱　NDH2000）
- 全光線透光率(T.T)：　JIS K 7361-1
- 霧度(Haze)：　JIS K 7136

低信号損失 Low insertion Loss

空洞共振法





Microstrip Line
Line length : 100mm