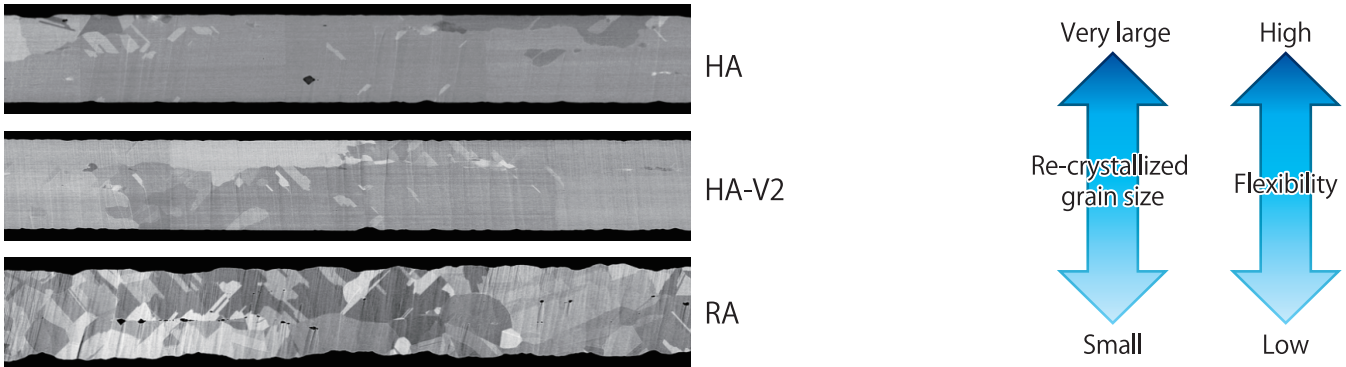


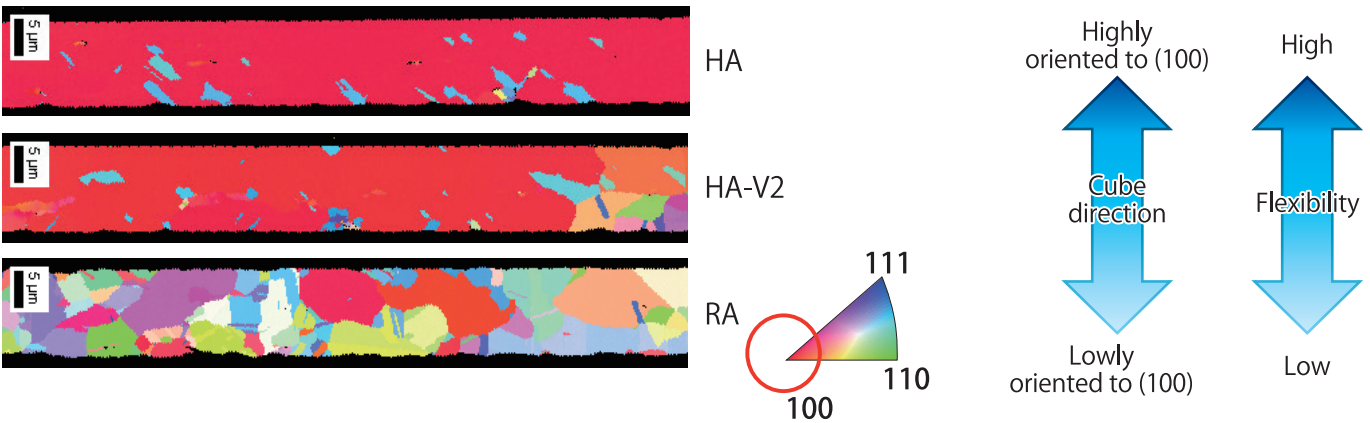
Super Flex RA Foil [HA & HA-V2]

- The flex life of HA & HA-V2 is much longer than that of regular RA foil. HA & HA-V2 satisfy high-end FPC usages, required in dynamic applications.
- HA-V2 shows good handling behavior while maintaining super flexibility.

Recrystallized structure - Comparison of cross-sectional crystal structure, FIB-SIM images -



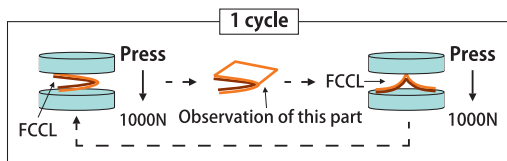
Crystal orientation - Comparison of crystal orientation, EBSD images -



- The fold flex life of HA & HA-V2 is much longer than that of regular RA foil. Therefore, FPC with HA & HA-V2 can be just-fit shape when it is mounted in components.

Evaluation of repetitive bendability

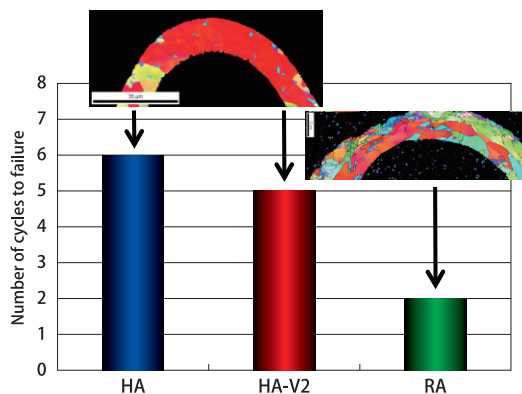
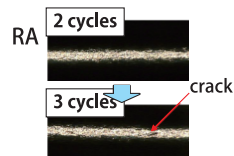
- Evaluation method (180 degrees folding endurance)



- FCCL

Cu	12μm
TPI	2μm
PI	50μm
width	12.5mm

- Result (Ex.)



Cracks didn't appear in RA foil within two cycles, in HA-V2 foil within five cycles, or in HA foil within six cycles. HA foil, and HA-V2 foils are superior in repetitive bending.