

BADGERCORD® ACC 30-x00

The product testing for BADGERCORD® Zinc Ribbon has been completed using a rigorous set of tests, including bending, tensile ductility, and scanning electron microscope image evaluation. Below are comparative results of a scanning electron microscope image evaluation.

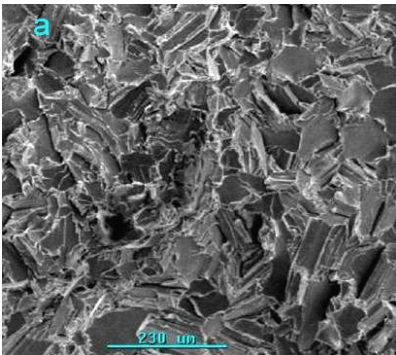
Test Parameters

Scanning Electron Microscope Images (100x magnification)

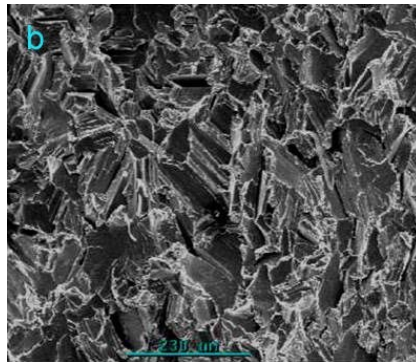
- Image (a) Standard size zinc ribbon manufactured by US Company
- Image (b) ACC BADGERCORD® Standard size zinc ribbon
- Image (c) Typical “Chinese” Standard size zinc ribbon

All samples were chilled to -5°C and bent repeatedly to failure. The images were taken at the fracture point.

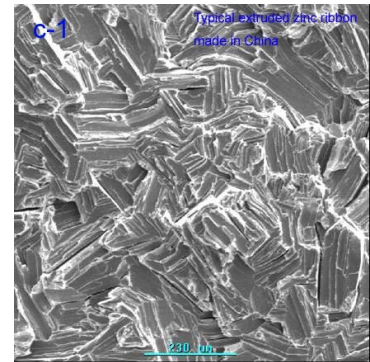
Images



(a)



(b)



(c)

Analysis

- Images (a) & (b) exhibit dimple fractures, indicating that the specimen absorbed energy and strain and that the micro-pores increased prior to failure. In other words, these images indicate plastic deformation occurred prior to cracking. Image (c) cross section shows a brittle rupture indicating that little if any plastic deformation occurred prior to cracking.
- Images (a) and (b) exhibit similar ductile rupture, indicating that the two have lower transformational temperature from ductile to brittle. The brittle rupture shown in image (c) indicates the transformational temperature ductile to brittle is higher than (a) and (b) and had already

Conclusion

Both Specimens (a) and (b) will perform well in bending applications in all working temperatures. Specimen (c) will crack with excessive bending or when used in cold weather applications.

CONTACT INFO:

P (877) 882-4455
F (713) 513-5799
SALES@AMCARBON.COM

AMERICAN CARBON COMPANY
P.O. BOX 88045
MILWAUKEE, WI. 53228