Calculating Bend Allowance for Radial Bends

The material required (BA) for radial parts is the length of the arc of the neutral axis (C). This neutral zone is an area in the metal which is assumed not to be affected by compression or tension.

The length of an arc = R (radius) x multiplication factor

Multiplication factor = \( \frac{3.141593}{180} \) x number of degrees

Because of the inconsistency in raw material, it is advised to fabricate a prototype form. The prototype should simulate the same grain direction as in the die to produce the parts. This will ensure accuracy for that material.