Bakelite® Molding Compounds: Best practice part design recommendations

These are intended as “best practice” guidelines applicable for all molding compounds. Successful commercial parts have been designed and produced that are exceptions to these guidelines.

Design Element	Recommended	Rational
Wall section thickness [t]	t = 0.08” – 0.24” (2 – 6 mm)	▪ Ability to fill part features ▪ Minimize cure/cycle time
Variation in wall section thickness	±10 – 25% on primary structure	▪ Uniform part filling ▪ Even cure throughout part
Radius corners	Fillet: 0.2 t – 0.5 t Corner: 1.2 t – 1.5 t	▪ Eliminate stress concentrators ▪ Improve material flow
Draft angle	1.5° – 2.5° standard 0.5° minimum	▪ Facilitate part removal ▪ Prevent damage to part surface on removal
Ribs & Gussets	Width: 0.4 t – 0.6 t (include draft) Height: < 3 t Minimum spacing: 2 t	▪ Mechanical support ▪ Ability to fill without thick sections
Bosses	2 – 3 x diameter of hole (include draft) Height < 3 t Support: 3 – 4 gussets / ribs	▪ Hoop strength to support fastener or pin insertion ▪ Solid lateral mechanical support for feature

There is more you need to know? What is your challenge?
We are happy to help! Contact us today at molding-compounds@hexion.com