



- [Home](#)
- [Employee Login](#)
- [Press Room](#)
- [Legal](#)
- [Disclaimer](#)
  
- [About Us](#)
  - [Our History](#)
  - [Technology Associates](#)
  - [Corporate Responsibility](#)
- [Technologies & Services](#)
  - [Our Technologies](#)
  - [Technology Timeline](#)
  - [Research & Development](#)
  - [Licensee Support](#)
  - [Field Services](#)
  - [Support Services](#)
- [Contact Us](#)
  
- [Ethylbenzene](#)
- [Styrene](#)
- [Cumene](#)
- [Bisphenol A \(BPA\)](#)
- [BenzOUT™ Technology](#)

## Bisphenol A (BPA)

The Badger bisphenol A (BPA) technology produces a high-purity BPA product from phenol and acetone that is suitable for polycarbonate and epoxy resin applications. The process uses ion-exchange resin catalyst, and features proprietary purification technology. About 1.2 million tons of capacity has been licensed across the globe.

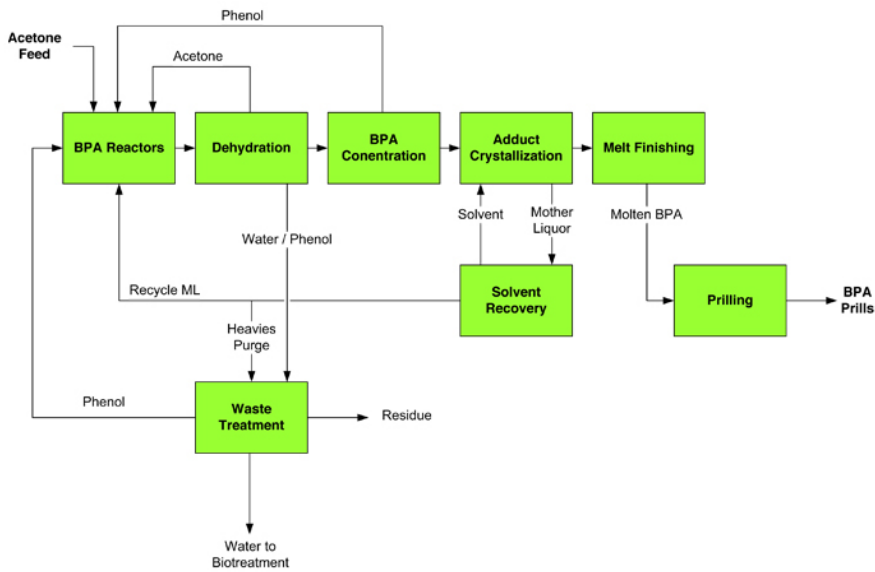
In the BPA condensation reactors, phenol and acetone react over an ion-exchange resin catalyst in the presence of a homogeneous promoter and excess phenol, to produce bisphenol A, water and various byproducts. The catalyst system has a long catalyst life.

The water of reaction and the small amount of unreacted acetone are removed from the reactor effluent by distillation. Acetone is recycled to the reactor system. No acetone purge is required with this process. The reaction water is sent to the waste recovery system, from which wastewater suitable for biotreatment and phenol suitable for recycle to the reaction system are produced. The dehydration effluent is concentrated to a BPA level suitable for crystallization.

BPA is separated from byproducts in a proprietary solvent crystallization and recovery system to produce the adduct of p,p BPA and phenol. Mother liquor from the purification system is distilled in the solvent recovery section to recover dissolved solvent. The solvent-free mother liquor stream is recycled to the reaction system. A purge from the mother liquor is sent to the waste recovery system.

Single train designs as large as 200kta or as small as 60kta are available.

The purified adduct is processed in a BPA finishing system to remove phenol from the product, and the resulting molten BPA is solidified in the prill tower to produce prills suitable for the merchant BPA market, including polycarbonate production.



[View enlarged diagram](#)

# Badger's Technology

- 99.95% BPA suitable for polycarbonate and epoxy resins feedstocks
- 200 kta single train capacity
- Long catalyst life
- Infrequent turnarounds



 The **ingenuity** behind proven technologies

[About Us](#) | [Technologies & Services](#) | [Contact Us](#) | [Press Room](#) | [Legal](#)

©2012 Badger Licensing, LLC. All rights reserved.