

# Effect of peroxides in controlled-rheology polypropylene (CRPP)

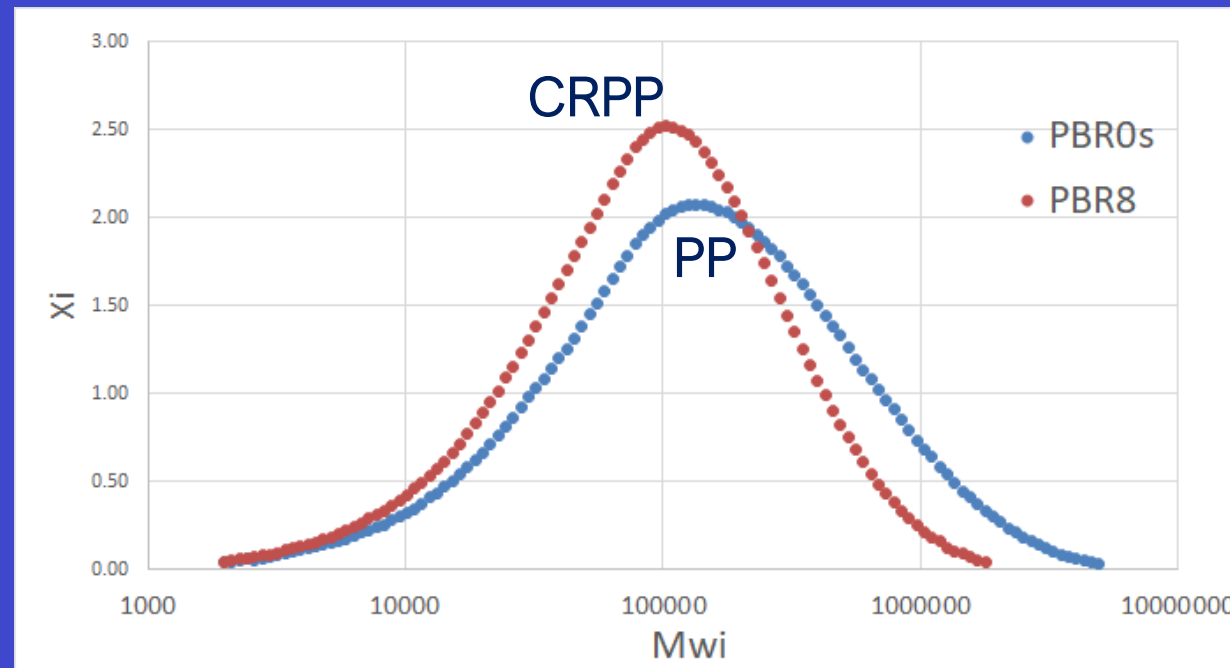
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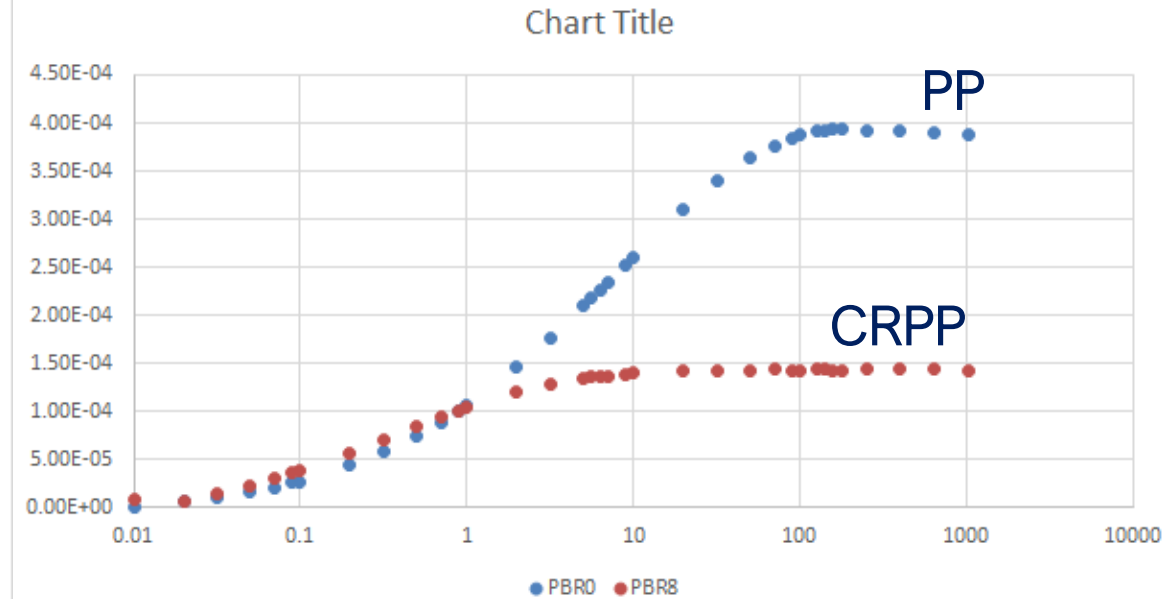
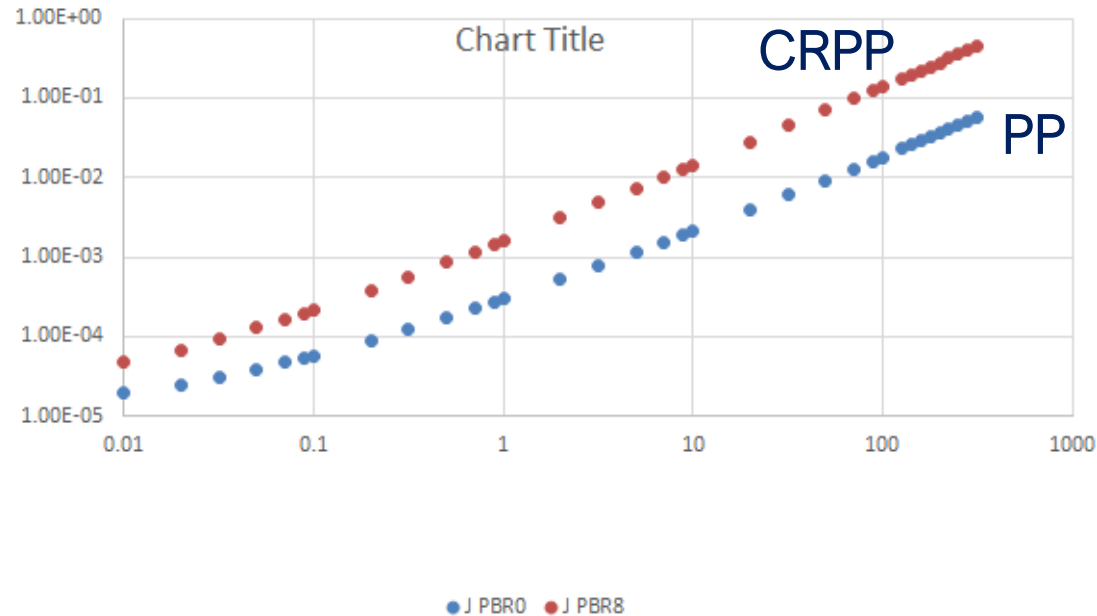
- 1) the PP resin / peroxide mixture **creates radicals**
- 2) the radicals **attack the polymeric chains**
- 3) the increase of the number of broken chains:
  - a) **decreases** the average molecular weight (**Mw**), and
  - b) **narrows the MWD**.



4) which, **increases the MFI**.

5) Furthermore, the new material will **creep faster**, and

6) will **NOT recover as fast** as the starting material.



\* In short, high peroxide concentrations accelerate creep-ness and harm recovery.

