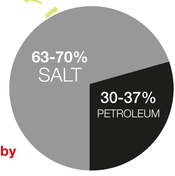
FLOWGUARD PIPE & FITTINGS

How Energy Efficient Is CPVC Compared to Other Piping Materials

What is CPVC?

CPVC compound is used for hot and cold plumbing system piping and fittings. By weight, **2/3 of CPVC comes from the same elements found in salt,** of which there is an almost limitless supply, while only 1/3 comes from petroleum resources.

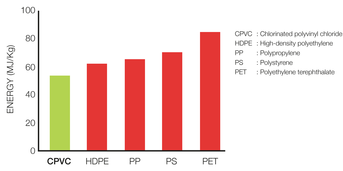


CPVC's content by weight

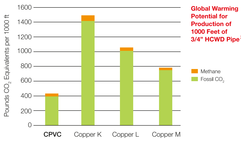
3 Key Areas Where CPVC Has Lower Environmental Impact than Alternatives

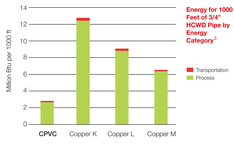
Energy Consumption During Production

- CPVC production **requires less energy** than most other polymers due to its low petroleum content.[1]

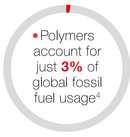


- Significantly less energy is required for CPVC piping transportation and processing **than copper,** which also gives it a much lower potential to contribute to global warming.





- Total Fossil Fuel Depletion



• CPVC uses **significantly less fossil fuels** than PPR

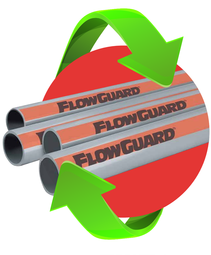
Toxicity

- When CPVC does burn, the combustion products are **no more toxic than traditional building materials**, such as Douglas Fir.[5]

- Dioxins are commonly associated with plastics manufacturing. However, according to an analysis of over 1,900 test results from 169 large-scale commercial incinerator facilities, there is **no relationship between the chlorine content of waste and dioxin emissions** from combustion processes.[6]

- PVC and CPVC production does **not increase the quantity of dioxin** in manufacturing waste gases.[7]

Recyclability



- CPVC is **easily recycled** as PVC piping, window profiles and more.

- The piping can also be **ground into pellets and granules** for use as:
  - *Floor fillings*
  - *Floor coatings*
  - *Cable trays*
  - *Speed bumps*
  - *Car mats*

- PPR piping, however, cannot be easily recycled because it must often be reinforced with fiberglass or aluminum.

SOURCES

1. H. Sambole, Kapitel Nachchlorierte Polyvinylchloride Rohre, Technical University Berlin, 1993.
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5. United States Testing Company, Inc., 1989
6. American Society of Mechanical Engineers, 1996
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