



DCI, Inc.  
600 North 54 Avenue  
St. Cloud, MN 56303  
Ph: (320) 252-8200  
Fx: (320) 252-0866  
www.dciinc.com

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## The Green Choice – Polyethylene vs. PVC Protection Film Technical Data Sheet

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### The use of Polyethylene Protective Film Coating vs. PVC:

DCI, Inc. has been actively changing our policies and procedures over the years in order to reduce our negative impact on the environment and minimize our carbon footprint. One of the many ways we have “made the green choice” is by choosing Polyethylene (PE) over PolyVinyl Chloride (PVC) as the material used for our protective film coating. Polyethylene protective film coating is used to protect the surfaces of our vessels and equipment from handling, moisture, oil, dirt, solvents and UV during processing, storage and installation. Although many companies still use PVC for their protective film coatings-mainly because it is inexpensive, DCI, Inc. has recognized the disadvantages associated with using PVC and chooses to utilize Polyethylene as a “green choice” alternative.

PVC is not a good choice for many reasons: it’s not environmentally friendly, plus it contains many additives which can pose health risks to those who are involved in the production and disposal of PVC. In fact, PVC is considered to be the most problematic plastic due to all of the hazardous characteristics that are associated with it:

- PVC is the least recyclable plastic
  - Less than 5% of PVC is recycled
  - PVC cannot be readily recycled due to its chlorine and additive content
  - PVC is considered a contaminant in other recycling streams
  - Post-consumer PVC is either land filled, where it leaches toxic additives, or incinerated, emitting dioxins and other toxic substances
- PVC contains high levels of hazardous additives
  - Phthalates are added to PVC to make it soft and flexible-some are heavy metals of lead and cadmium
  - Phthalate plasticizers are not chemically bound to PVC and can therefore easily leach and evaporate into the atmosphere
  - PVC poses severe hazards to humans over the course of its life cycle and has been linked to cancer and kidney damage and may interfere with the reproductive system and its development
- PVC contains high contents of chlorine
  - Corrosive to stainless steel, especially when not removed and cleaned correctly
  - Further contaminates the environment
- PVC is not degradable or biodegradable

DCI, Inc. has recognized the adverse effects of using PVC as a protective film coating throughout its entire life cycle, from its production to its disposal. PVC not only poses risks to the environment, but also has numerous hazardous health risks associated with it. For these reasons, DCI has chosen to make the “green choice” by using PolyEthylene (PE) protective film as a safer alternative to PVC.

- PE has the desirable properties of PVC without all of the health and environmental concerns
- PE recycling rates are high when compared to other plastics
- If not recycled, PE be incinerated or safely land filled
- Manufactured using non-chlorine chemistry
- PE uses fewer problematic additives than PVC

Companies and consumers who want to make a difference in the environment and lower your carbon footprint can easily do so by simply choosing stainless steel products by DCI, Inc.

DCI, Inc. is committed to being the premiere supplier of innovative solutions for our customers through the design and fabrication of stainless steel and alloy equipment.

Note: PVC has a low carbon footprint to produce (therefore inexpensive), however has a larger carbon footprint thru its life cycle. At time of print, newer PVCs are being introduced that are considered safer; however, it is yet to be cost effective and commonly available.

Various reference resources (not inclusive): [www.pvcinformation.org](http://www.pvcinformation.org) [www.earth911.org](http://www.earth911.org) [www.plasticizers.org](http://www.plasticizers.org)