



# 6 WAYS TO GO GREEN

AND KEEP IT CLEAN WHEN PREVENTING RUST.

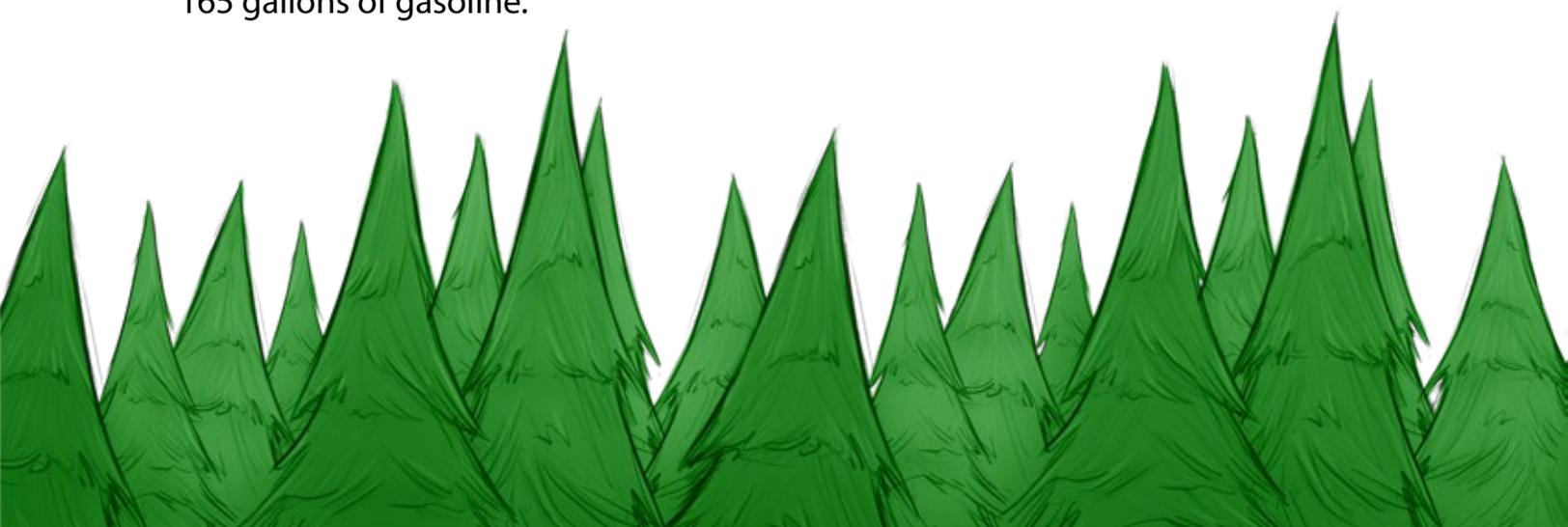
## 6 WAYS TO GO GREEN AND KEEP IT CLEAN WHEN PREVENTING RUST

-  **6 WAYS ARMOR GOES GREEN**
-  **WHY BIO-BASED & COMPOSTABLE PLASTICS ARE NOT THE ANSWER**
-  **WHAT IS CLEAN, SAFE & EASY RUST PREVENTION?**

## 6 WAYS ARMOR GOES GREEN

### 1 ARMOR PRODUCTS ARE RECYCLABLE

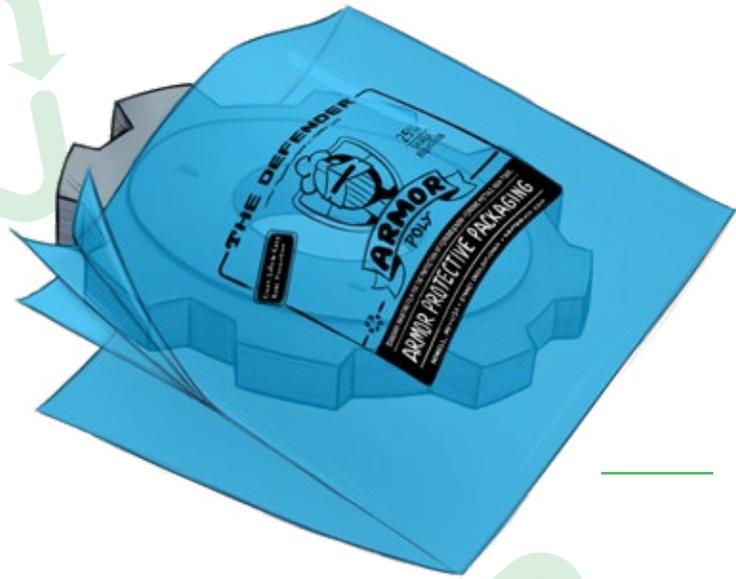
Recycling 1 ton of paper (such as ARMOR WRAP®) saves 17 mature trees, 7,000 gallons of water, 3 cubic yards of landfill space, 2 barrels of oil and the energy equivalent of 165 gallons of gasoline.



# 2

## RECYCLED CONTENT IS MONEY WELL SPENT

By 2020, we expect to have a minimum of 30% post-consumer recycled content in all ARMOR POLY® VCI films.



# 3

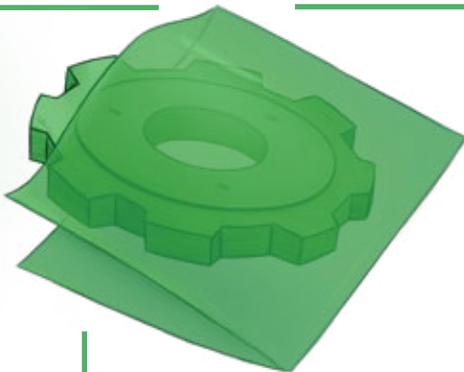
## SOURCE REDUCTION SAVES OIL PRODUCTION

Source reduction means get the same result from your product but using less to make it. To better understand this, let's compare a regular, traditional light bulb (incandescent) to an LED bulb. You get light but it would give off 90% of its energy as heat not light and improvement in technology gave us LED bulbs. They don't waste that same amount of energy. LED's use 80% less energy than a traditional light bulb but you still get light, you are just getting your light much more efficiently. We did that with film.

### INCANDESCENT BULB



Gives off 90% of energy as heat, not light



### VCI MONO FILM

- 70% of VCI not used
- Traditional VCI film
- Barrier by thickness only

### LED BULB



Uses 75-80% less energy than an incandescent bulb



### DEFENDER FILM™

- Uses 25% less material
- VCI only where you need it
- Innovative barrier layers

# 4

## THE BIODEGRADABLE FABLE

At this time biodegradable plastics are not a commercial solution.

*"Biodegradable plastics are well-intentioned but wrong"*

- Jacqueline McGlad, chief scientist at the UN Environment Programme

The Biodegradable Plastics Blacklist:

- Biodegradable polymer-based films require high temperature and sunlight to biodegrade but these conditions are unrealistic given the current waste and composting systems.
- Its name encourages people to think they actually degrade and promotes 'single use' mentality.
- Most are still made from petrochemicals, but other chemicals are added to cause the plastic to break down to smaller pieces - if exposed to the right conditions - making them difficult to recycle.
- Often associated with "green washing," a marketing technique where a company or a product falsely claims to be eco- or environmentally-friendly.
- If they enter the ocean, they can be worse as smaller plastic pieces are easily ingestible.

**BIODEGRADABLE 101**

*They form micro-plastics that threaten all wildlife and organisms that consume them.*



# 5

## PAPER IS A RENEWABLE RESOURCE

ARMOR WRAP® papers are renewable and sustainable.



SUSTAINABLE FORESTRY INITIATIVE

Paper is made from wood, a natural resource that is renewable and recyclable.



# 6

## ARMOR'S GREEN THUMB

- Use Dry Coat Rust Preventative Spray instead of messy grease
- Use ARMOR VCI paper instead of RP oils; they're horrible for you and the environment
- Use Metal Rescue Rust Remover Bath instead of harsh acids to remove rust



**GREASE**



**GREEN  
VS.  
UNCLEAN  
OIL**

**ACID**

**METAL  
RESCUE**

**ARMOR  
WRAP**



**Dear Professor: Why aren't bio-based & compostable plastics the answer?**

## **BIO-BASED PLASTICS**

ARE RENEWABLE, BUT:

- Require land resources to produce
- Require large amount of energy to produce
- Are still too expensive
- Are not biodegradable or compostable

## **COMPOSTABLE PLASTICS**

SPECIAL CONDITIONS ARE NEEDED TO BREAK DOWN

- High temperatures
- Proper combo of oxygen & moisture
- Specific organisms
- Difficult to compost PLA plastics
- Not Recycled by typical methods
- Lack of infrastructure for compostable plastics
- Contaminate traditional recycle streams

WHY ARMOR PRODUCTS ARE

# CLEAN, SAFE & EASY



## PEOPLE

### CLEAN

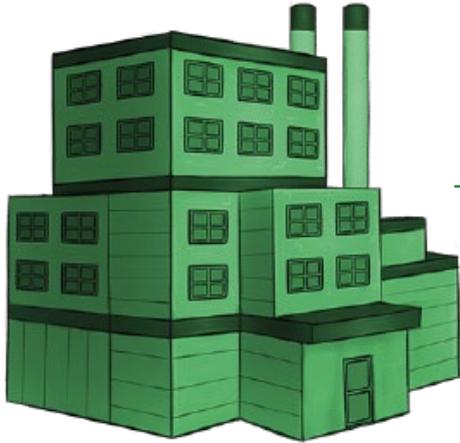
- Water-based rust prevention infused into packaging
- Simple storage & handling - VCI packaging materials are clean/dry

### SAFE

- Prevents health and safety risks
- Eliminates messy oils, greases and solvent-based chemicals

### EASY

- Reduction in time and labor to apply
- Once removed from packaging, metal is ready to use



## FACILITIES

### CLEAN

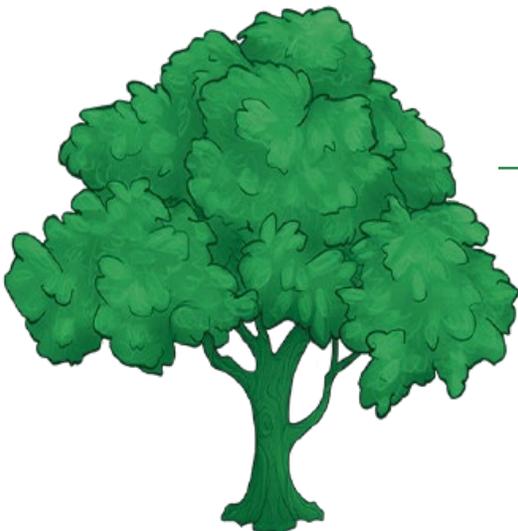
- Elimination of spills & accidents
- Elimination of labor costs to clean hazardous material

### SAFE

- Protects work environment
- Eliminate insurance premiums

### EASY

- No set-up, tool or application process
- Eliminates expensive disposal of hazardous materials



## ENVIRONMENT

### CLEAN

- Extension of metal parts' life
- Reduction of energy and raw materials
- Reduction of pollution and waste

### SAFE

- Water-based rust prevention
- Reduction of source materials

### EASY

- Reuse rather than replacement
- Reduction of energy, waste and raw materials

TAKING THE WORK OUT OF YOUR WORKDAY