

# Clancy's Commercial

---

## HIGH PERFORMANCE COATINGS

### ADVANTAGES & DISADVANTAGES OF COATING TYPES

#### **NITROCELLULOSE LACQUERS**

These are 1-component products, which dry by evaporation of solvents.

##### **Advantages**

- 1-component
- easy to apply
- quick-drying
- easy to repair
- good clarity
- no problem with recoat ability and adhesion

##### **Disadvantages**

- low solids (about 20 %) -- high VOC
- poor chemical resistance
- poor heat resistance
- poor mar resistance
- not durable

# Clancy's Commercial

---

## HIGH PERFORMANCE COATINGS

### PRE-CATALYZED LACQUERS

Catalyst is already built into the lacquer. It dries by solvent evaporation and chemical cure.

#### Advantages

- 1-component product high solids (23-32%)
- relatively good chemical resistance
- quick-drying
- very good clarity
- meets KCMA specifications
- meets AWI specification OP2

#### Disadvantages

- shelf life stability is 6-months
- needs sanding between coats for better adhesion

# Clancy's Commercial

---

## HIGH PERFORMANCE COATINGS

### POST-CATALYZED LACQUERS AND VARNISHES

These are 2-component products. The user introduces a catalyst into the product. Drying takes place by chemical cure.

#### Advantages

- high solids (32-65%) – lower VOC
- very good chemical resistance
- good light resistance
- abrasion resistance
- meets KCMA specification
- meets AWI specification TR2, OP2, TR4, OP4

#### Disadvantages

- 2-component product (needs to be catalyzed before using)
- shorter pot life (8 hours)
- needs sanding between coats for adhesion purposes
- more difficult to polish

# Clancy's Commercial

---

## HIGH PERFORMANCE COATINGS

### WATERBASE COATING

Conventional Products – these are thermoplastic, which dry by evaporation of water and coalescent solvent.

#### Advantages

- low VOC (less than 2 lbs./ gallon)
- environmentally friendly
- safe in workplace
- better chemical resistance than nitrocellulose lacquer
- good adhesion to wood and between coats
- meets KCMA specifications
- meets AWI specifications TR3, OP3

#### Disadvantages

- somewhat slower drying
- some grain raising depending on wood substrate
- drying is affected by atmosphere humidity
- inferior chemical resistance to solvent catalyzed products

# Clancy's Commercial

---

## HIGH PERFORMANCE COATINGS

### POLYESTER COATING

This is a 3-component product which works best with plural component spray equipment -- requires an accelerator and promoter for curing.

#### Advantages

- high solids (80% and higher)
- excellent chemical resistance, hardness, flexibility, mar resistance, and abrasion resistance
- very high gloss and depth
- very high build – up to 24 dry mils
- meets KCMA specification
- meets AWI specifications TR7, OP7

#### Disadvantages

- 3-component product (needs a catalyst and promoter to cure)
- very short pot life (if plural component equipment not used)
- needs special equipment for production
- needs special attention in handling the accelerator and promoter
- difficult to get stain finish (low gloss)
- slow cure and long tack-free time, unless using heat for curing
- requires clean environment

# Clancy's Commercial

---

## HIGH PERFORMANCE COATINGS

### POLYURETHANE COATING

The polyurethane we are discussing is a 2-component product, the user introduces a catalyst into the product.

#### Advantages

- solids about 45%
- excellent chemical resistance
- very good mechanical properties, hardness, flexibility and abrasion resistance
- very good clarity
- high gloss and depth
- meets KCMA specifications
- meets AWI specifications OP8

#### Disadvantages

- short pot life after catalyzing (up to 4 hours)
- contains Isocyanate
- sensitive to environmental changes (primarily temperature and humidity)
- curing is slower than acid catalyzed, (however, faster than polyester)

# Clancy's Commercial

---

## HIGH PERFORMANCE COATINGS

### ULTRAVIOLET CURE PRODUCTS

These products cure by exposure to ultra-violet light.

#### Advantages

- high solids coatings (up to 100%)
- fast cure (just seconds)
- excellent chemical resistance, abrasion resistance, flexibility and mar resistance
- most suited to flat-line applications

#### Disadvantages

- pigmented coatings (multiple passes to achieve full hide)
- will cure only by exposure to ultra-violet light (areas not exposed will not dry)
- difficult to lower the gloss in certain applications