

Staying Connected

Building Awareness

Developing Knowledge



1 Fillers, Putties & Glazes

2 Primers & Clears

3 RAPTOR Part I

4 RAPTOR Part II

5 Premium Aerosols

6 Custom Cans



HeadStart – Process Development

7 | RAPTOR: Alternative Uses

8 | Specialty Fillers: Fiberglass Fillers

9 | Specialty Fillers: Plastic Repair

10 | Premium Aerosols Part II

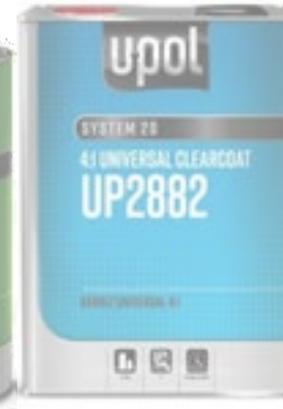
11 | Smart Repair

12 | Fast: Fill & Prime

Module 7: Raptor Alternative Uses



Fillers



Clears and Primers



RAPTOR



Aerosols

Custom Cans





Raptor Alternative Uses

Raptor and the “Art of The Possible”

70 – 80% of all Raptor applications ARE NOT as a truck bed liner.

Primary focus of this module is developing and exploiting non-truck bed opportunities in commercial, industrial and architectural market segments.

Many opportunities are with the existing customers that you are currently servicing

Raptor Alternative Uses

Raptor and the “Art of The Possible”

ONE DURABLE COATING - **UNLIMITED USES**

Commercial and Heavy Equipment / OEM / Heavy Duty Truck /
Maintenance / Recreational / Theme and Amusement Parks /
Specialty Industries



Raptor Alternative Uses



Why is Raptor so well accepted?

- Raptor is a problem solving coating
- Resolves performance deficiencies found with other coatings
- Unmatched resistance to a broad range of chemicals
- Lasts longer than competitive coatings (Boston Metro example)
- Enhances safety
 - Non-skid surfaces
 - Emergency walkway areas
- Ease of application
- Ability to add / make any color desired or required



Raptor Alternative Uses

ASTM and 3rd Party Evaluation

Outstanding UV stability – exceeds 5,000 hr QUV resistance test

Property	Test Method	U-POL Raptor	U-POL Raptor over U-POL Epoxy primer
Salt Spray Resistance	ASTM B 117-16	Scribe creep (maximum width both sides) 250hrs: - 1.3mm 500hrs: - 2.6mm 750hrs: - 3.0mm	Scribe creep (maximum width both sides) 250hrs: - 1.05mm 500hrs: - 1.50mm 750hrs: - 2.32mm
Water Immersion	ASTM D870-15 (38°C for 30-days)	Slight to moderate color change (fading) no blistering	Slight to moderate color change (fading) no blistering
Taber Abrasion Resistance	ASTM D4060-14 (CS-10 1000g wheel)	8590 cycles until wear through to substrate	
Pencil Hardness	ASTM D3363-05(2011)e2	Gouge hardness of 6H	
Adhesion	ASTM D3359-09e2 Method A	5A (No peeling or removal)	5A (No peeling or removal)
Chip Resistance	ASTM D3170/D3170M-14 (Physical Count)	23°C:- 8 C 30°C:- 8 B 0°C: - 8 C	23°C:- 8 B 30°C:- 8 B 0°C: - 8 B
Impact Resistance	ASTM D2794-93(2010)	23°C:- 93 inch pounds (10.5 Joules) 30°C:- 70 inch pounds (7.9 Joules) 0°C: - 64 inch pounds (7.2 Joules)	23°C:- 68 inch pounds (7.7 Joules) 30°C:- 104 inch pounds (11.75 Joules) 0°C: - 46 inch pounds (5.2 Joules)

Raptor Alternative Uses

ASTM and 3rd Party Evaluation

Property	Test Method	U-POL Raptor	
Chemical Resistance	ASTM D1308 Method 3.1.2 Spot Test, Open	60-minutes Pass = No visual change in color or gloss and no blistering. Xylene: Pass 10% NaOH: Pass Hydraulic Oil: Pass Gasoline: Pass Diesel: Pass Water: Pass 50% Ethylene Glycol: Pass Motor Oil: Pass	6-hours Pass = No visual change in colour or gloss and no blistering. Adhesion (ASTM D3359 Method A) Xylene:- Pass. Adhesion 2A 10% NaOH: Pass. Adhesion 5A Hydraulic Oil: Pass. Adhesion 5A Gasoline : Pass. Adhesion 5A Diesel: Pass. Adhesion 5A Water: Pass. Adhesion 5A 50% Ethylene Glycol: Pass. Adhesion 5A Motor Oil: Pass. Adhesion 5A
Dielectric Breakdown	ASTM D 149	Breakdown voltage: 1.5kV Breakdown strength: 4.8 kV/mm	
Flammability of coating	FMVSS 302, ISO 3795 and BS AU 169a	0.0 mm/min SE (requirement in FMVSS 302 \leq 100 mm/min)	
Anti Slip	NFPA 1901, ASTM E303-93 And BS 7976-2	Dry: Pendulum test value 54, slip risk Low Wet: Pendulum test value 23, slip risk High With Raptor Traction: Dry: Pendulum test value 58, slip risk Low Wet: Pendulum test value 45, slip risk Low	



DRIVING SURFACE PERFECTION

Raptor Alternative Uses

Raptor packaged for high volume users and point of use application



200 Liter
Drums



20 Liter /
5.28 GI Kit



2K
Aerosol



Primers

Raptor Alternative Uses

Commercial storage and handling



Raptor Alternative Uses: Equipment Considerations



Raptor Alternative Uses: Light Industrial Equipment



Application Range – Aviation GSE

- Skydrol - a fire resistant hydraulic fluid
- Standard coating is damaged in as little as 15 minutes.
- Raptor holds up to 24 hour full immersion.
- Raptor's chemical resistance is unmatched.
- Solved problem and is now the specified product for Delta and American GSE...additional pending



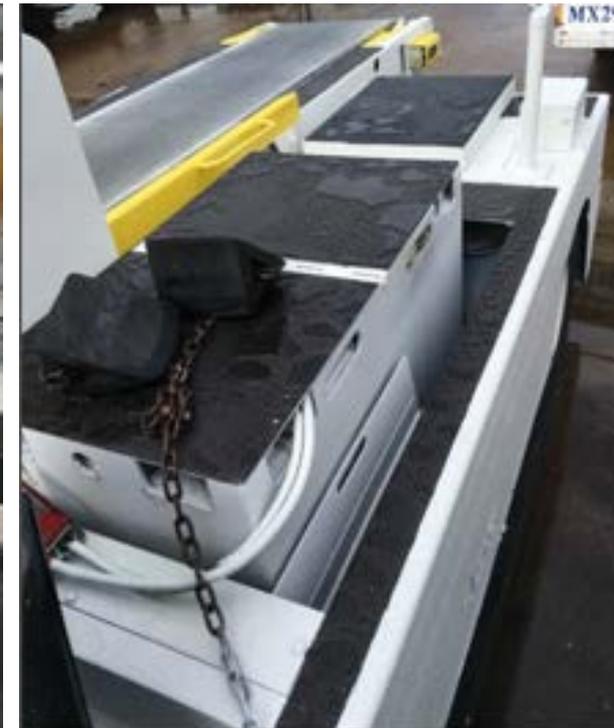
Raptor Alternative Uses: Light Industrial Equipment



Aviation Ground Support needs



Before Raptor



After Raptor

Raptor Alternative Uses: Light Industrial Equipment



Aviation Ground Support needs



Before Raptor



After Raptor

Raptor Alternative Uses: Industrial Flooring



The issue – Boston Metro and San Antonio city maintenance facility

- Situation – 57,000 Sq. Ft. facility
- Epoxy floor coating not holding up to chemicals
- Required re-coat every 7 to 9 months.
- Raptor's chemical resistance is unmatched.
- Time study projected that Raptor would last 3 years
- Actual time between re-coat was 5 years.
- Labor, facility down time and material cost reduced

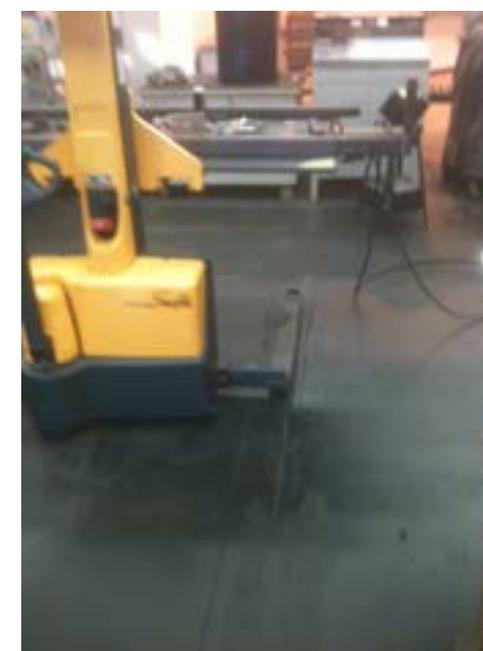
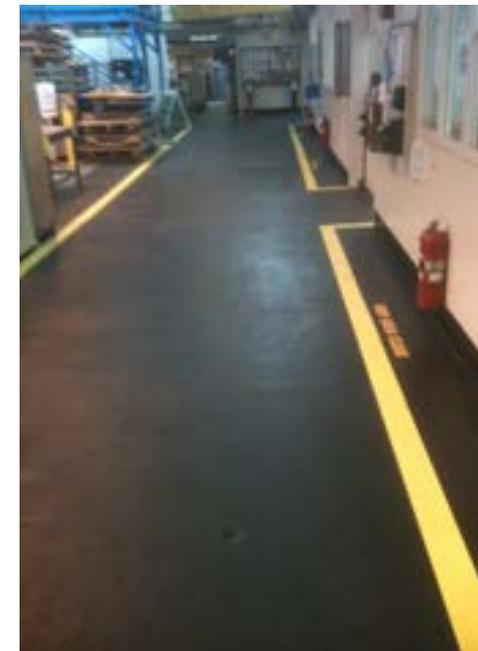


Raptor Alternative Uses: Industrial Flooring



Boston Metro maintenance facility

- Installation required 475 kits – 4 pallets for initial floor application
- Additional 3 drums purchased by Boston Metro for ongoing use on equipment and additional applications.
- Distributor pick-up was – approximately \$55K



Raptor Alternative Uses: Industrial Flooring



San Antonio city maintenance facility

- 9 Bus service bays coated – black, yellow and green
- All service area walkways – black and safety yellow
- Distributor pick-up = 100 kits (black and tintable)



Raptor Alternative Uses: High-Performance Architectural



Application Range: Disney and Six Flags Atlanta

- Approved for use in all Disney properties.
- Situation – poor durability of traditional 2K urethanes and epoxy coatings.
- Average coating life span was 1 – 3 months in high traffic areas – some areas required daily re-coating during peak season.
- Time study – Raptor has lasted 2 years - still going.
- Raptor's tint feature allows for all colors
- Labor, facility down time and material cost reduced.
- Annual paint budget 380K - automotive coatings are = 220K. Raptor is now 25% of their paint budget
- Six Flags has 26 Parks nationwide not to mention local / regional theme parks

Raptor Alternative Uses: High-Performance Architectural



Application Range: Six Flags



Raptor Alternative Uses: High-Performance Architectural



Application Range: Six Flags Atlanta



Raptor Alternative Uses: Police / Military / Fire



Application Range: CW Armor

- Situation – ballistic panels / plates
- Seeking a coating that would increase impact resistance without increasing weight.
- Coating that could be used over wide range of substrates – Kevlar, AR500 steel, carbon fiber
- Resists delamination



- Raptor increased fragmentation retention by 19%

Raptor Alternative Uses: Police / Military / Fire



Raptor Alternative Uses: Police / Military / Fire



Raptor Alternative Uses: Marine



DRIVING SURFACE PERFECTION

Application Range: Cape Fear Boat Works

Cape Fear Boat Works
Leland, NC 28411

Cape Fear Boat Works has been using RAPTOR, a U-POL product since 2013. Cape Fear Boat Works has used RAPTOR on all types of materials from wood, glass, plastics and metal with great results. Applying RAPTOR to any surface and reapplying after one hour to thicken and change textures, is as easy as 1-2-3.

One of the best features of using RAPTOR is how simple, repairing and recoating surfaces is. When reapplying RAPTOR either for touch ups or damaged areas, the finished product looks original and not quilt patched. The color and the texture match perfectly. This means the cost of maintaining the surface of your boat, truck or car can be kept affordable. Color schemes are what your imagination can come up with.

It has a great UV sun protector and RAPTOR allows you to do the most important thing with your newly coated surface—USE IT. It is scratch and stain resistant making maintenance of your restored surface easy. That is one reason Cape Fear Boat Works is proud to use and recommend RAPTOR by U-POL.

Sam Long
President
Cape Fear Boat Works



Raptor Alternative Uses: Marine



Multiple substrates. Above water line and all deck surfaces

- Raptor Epoxy Primer
- Tintable Raptor
- Traction Additive



Raptor Alternative Uses: Marine



Aluminum constructed fishing / hunting boats

- Raptor Epoxy Primer
- Tint pouches
- Tintable Raptor



Find out more on our training portal



- Visit our training portal at www.u-pol.com to see all our HeadStart information including videos / live stream sessions / Q&As

