P-629 Micro-surfacing Case Study

PRATTVILLE GROUBY FIELD AIRPORT

PRESENTED TO: ASCE – OCTOBER 22, 2020
INTRODUCTION

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Aviation Project Manager
Goodwyn, Mills and Cawood, Inc.
AUBURN UNIVERSITY ASCE STUDENT CHAPTER
2005-2006 CONCRETE CANOE CAPTAIN
WHAT LED ME TO BE AN AIRPORT ENGINEER...
WHAT DRIVES THE DIFFERENCES? THE VEHICLES.
WHAT DRIVES THE DIFFERENCES? THE VEHICLES.

MAIN GEAR: 95% OF THE GROSS WT.
NOSE GEAR: 5% OF THE GROSS WT.

Gross Weight – 60,000 lb

57k 3k

Gross Weight – 80,000 lb

34,000 lb 34,000 lb 12,000 lb

17k 17k 17k 17k
• 5,400’ Runway
• 36,000 sq. yd. Apron
• Full-length parallel Taxiway

• 5,000 sq. ft Terminal
• Full service FBO
• AvGas/Jet-A

• 30+ based aircraft
• 22,000 Annual Ops
• 11,000 Annual Flights
P-629 - TYPE B MICRO-SURFACING
1966 BEECHCRAFT C33A DEBONAIR
Piston Single Aircraft
Price: USD $145,000

Get Financing as low as USD $887.87 / monthly*

Aircraft Location:
Fayetteville, Arkansas

Serial Number: CE-94
Registration #: N7995M
Number of Seats: 4
Engine Notes: Continental IO-520-BB-8B
S/N: 274814-R SMOH: 414.2 hours by Executive Aircraft Engines, Olathe KS...

Updated: Mon, Oct 12, 2020 10:30 AM
Item P-629 Thermoplastic Coal Tar Emulsion Surface Treatments

DESCRIPTION

This specification for thermoplastic coal tar emulsion includes three options. Any of the options may be used on apron areas that require a fuel resistant coating serving aircraft less than 60,000 lbs (27216 kg).

1. Micro-surface: For use on all pavements on airports serving airplanes less than 60,000 lbs (27216 kg); any pavements on which aircraft do not operate including shoulders, overrun, roads, and parking areas. Micro-surface can be used at airports that server aircraft 60,000 lbs (27216 kg) or greater with FAA approval.

2. Sand slurry seal: For use on all pavements on general aviation airports serving airplanes 12,500 lbs (5670 kg) or less; all pavements, except runways, on airports serving airplanes less than 60,000 lbs (27216 kg); any pavements on which aircraft do not operate including shoulders, overrun, roads, and parking areas.

3. Spray seal coat: For use on all pavements, except runways, on general aviation airports serving airplanes 12,500 lbs (5670 kg) or less and any pavements on which aircraft do not operate including shoulders, overruns, roads, and parking areas.

The Engineer, with FAA concurrence, may specify this item for airports serving airplanes less than 60,000 lbs (27216 kg) except for runways and acute-angled exit taxiways.
P-629 – THERMOPLASTIC COAL TAR EMULSION SURFACE TREATMENTS

Spray Seal
(All Spray Sealcoats)

Micro-Surfacing

Sand Slurry
(Type C Micro-Surfacing)
WHAT IS MICRO-SURFACING?

- Plastic Resin and Emulsified Coal Tar Pitch, and Aggregate
- 20-22 pounds of aggregate per gallon of undiluted thermoplastic coal tar emulsion.
- Minimum application rate of 6.5 pounds per square yard of uncured slurry.
WHY MICRO-SURFACING?

- Fuel Resistant
- Increased Skid Resistance
- No Fading – Stays Black
- Eligible for FAA Funding
### Gravel Distribution Analysis (ASTM C136)

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<th>Lab ID#</th>
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<th>No. 4</th>
<th>No. 8</th>
<th>No. 16</th>
<th>No. 30</th>
<th>No. 50</th>
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FACTORS TO CONSIDER / LESSONS LEARNED

➢ Crack Seal Method is Key
➢ Color Variation
➢ Trapped Water
➢ Stakeholder Expectations
➢ Extended Warranty
THANK YOU