



**SURFACE TECH™**

## **PRECISION DOSING OF ARAMID FIBRE IN ASPHALT: WHY SURFACE TECH SETS THE STANDARD**

### **ARCA**


Aramid Reinforced Composite Asphalt

### **ASTM STANDARD**

65/tonne of HMA Asphalt / NOT  
456g/tonne

### **PRECISION DOSING**

Built for **engineered ASTM Standard  
accuracy,**



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CMDR

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## INTRODUCTION: LET'S GET ONE THING STRAIGHT—WE'RE JUST BETTER

At Surface Tech, our precision equipment reflects what we stand for: **unwavering compliance, unmatched consistency, and complete transparency for our customers.** These aren't extras — they're the foundation of performance you can trust.

In an industry built on **reliability, compliance, and performance**, the last thing your customer wants is "close enough." Our precision dosing systems are built for **engineered accuracy**, capturing real-time dosing data **every 10 seconds**, generating **daily reports**, and guaranteeing delivery of **exactly 65g/tonne of pure aramid per tonne of asphalt**, in full compliance with **ASTM D8395-23**.

Manually tossing bagged, **loose aramid blended with polyolefin plastic** = No metering. No QA. No way to know what actually makes it into your mix.

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## CHAPTER 1: SETTING THE GOLD STANDARD ASTM D8395 AND THE EPD YOU CAN TRUST

ASTM D8395-23 is the definitive benchmark for aramid fibre in asphalt. It standardizes the **65g/tonne of asphalt**. ACE XP™ solution delivers the ASTM Standard of **65g/tonne** of aramid fiber that fully disperses during mixing, ensuring complete delivery into the mix.

The **first aramid fiber product with a fully transparent EPD certification**, showing a verified carbon footprint of just **0.668 kg CO<sub>2</sub>/tonne**. This isn't a marketing badge—it's a commitment to environmental and performance transparency.





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## CHAPTER 2: STORAGE, SHIPPING & EFFICIENCY. WHY 1 BOX BEATS 6

Size matters. One 20 kg box of ACE XP™ treats **211 tonnes** of asphalt. A competitor's polyolefin-heavy /aramid blend? Only **35 tonnes per box**.

- 6X less storage space required
- Fewer pallets and reduced freight costs
- Lower labor burden and faster handling

This isn't just about footprint—it's operational and economic efficiency.



# CHAPTER 3: FLY-AWAY? NOT WITH SURFACE TECH ARCA.

**Fly-away** in asphalt fibre additives refers to the unwanted loss of fibers during production or mixing. When this happens, fibres become airborne or get trapped in the baghouse—**never making it into the mix**. That means compromised performance, wasted material, and unreliable results.

Our ARCA solution uses a precision wax coating that:

- **Melts cleanly at >76°C**
- **Releases no VOCs**
- **Leaves no residual plastic or pollutants**

The result? **No fiber loss. No environmental trade-offs. No compromise.** Just consistent reinforcement—in every ton

**If it's flying around your plant, it's not reinforcing your asphalt.**

## **Competitor Workarounds Create Bigger Problems**

Competitors try to minimize fly-away by blending aramid with **polyolefin plastics in a 453g bag**. But that additional plastic additive shortcut introduces new risks:

- **VOC emissions** during production
- **Worker exposure** to plastic fumes
- **Residual plastics**

## CHAPTER 4: PRECISION DOSING ISN'T OPTIONAL—IT'S OPERATIONAL INTEGRITY & TRANSPARENCY

Manual bag tossing is: Unmetered. Uncontrolled. Unverifiable.  
Surface Tech's precision dosing systems offer:

- 10-second interval reporting
- Daily QA production reports of oz/tonne
- Synchronization with both batch and drum plant production

We deliver **65g/tonne** of aramid fiber. This is compliance.





The background of the entire image is a dense, textured field of yellow straw or hay, with individual stalks visible in various orientations.

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# **CHAPTER 5: HOW MUCH ARAMID ARE YOU REALLY GETTING?**

**Ask the competition what's in their 456g bag.**

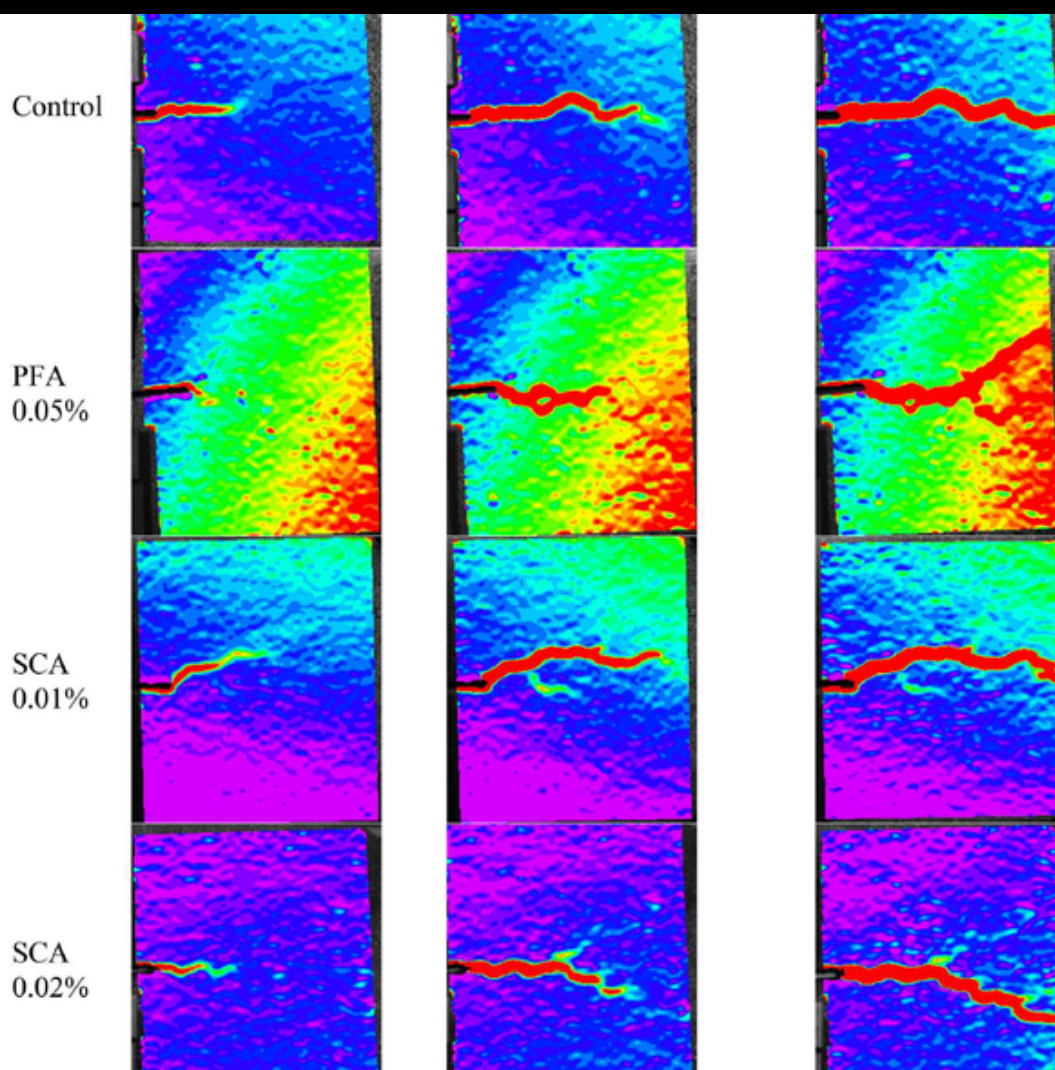
**Surface Tech declares:**

- 65g/tonne
- ASTM D8395-23
- EPD certified
- No filler, no plastic



# CHAPTER 6: PERFORMANCE BACKED BY TEST DATA — ROWAN UNIVERSITY PUTS SURFACE TECH AHEAD OF THE COMPETITION

In a peer-reviewed study from Rowan University Surface Tech's ACE XP aramid fibre solution was directly compared to Polyolefin Blended Aramid Fibre using advanced **Digital Image Correlation (DIC)**.





## KEY FINDINGS:

Metric	Control	Polyolefin Aramid Blend	Surface Tech ACE XP
Fracture Energy (N·mm)	177	292	327
Peak Load (N)	501	674	720
Crack Resistance Index	1.00	1.65	1.85
Residual Strength	Moderate	Moderate	High
Strain Localization	High	Reduced	Significantly Reduced



**“The aramid fiber system exhibited significant improvements in crack resistance and energy dissipation capacity, reducing fracture propagation by up to 55% compared to non-reinforced mixtures.” — Rowan University Test Report**

Surface Tech's bound fibre system showed superior **crack resistance, energy absorption, and dispersion**. Polyolefin Aramid Fiber blend couldn't match the uniformity or strength. This is what ASTM compliance and precision dosing deliver.

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# CHAPTER 7: YOUR QUESTIONS, OUR ANSWERS



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# ? HOW DO YOU ADDRESS FIBRE FLY- AWAY AT THE PLANT?

**We eliminate it.** Our patented wax-coated structure ensures 100% aramid delivery—no fly away, no baghouse loss, no drum hang-up.

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? CAN YOU  
PROVE I'M  
GETTING  
65G/TONNE?

**Yes.** Precision dosing provides **10-second interval reports** and **daily QA documentation**. You get what you pay for.



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# ? WHAT ABOUT VOCs OR PLANT EMISSIONS?

**No risk.** Our wax binder is VOC-neutral. Unlike polyolefin, it doesn't affect stack tests or raise health concerns.

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# ? IS YOUR PRODUCT EPD CERTIFIED?

**Absolutely.** Surface Tech was the first & leads the market with certified low-carbon additives.



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# ? DO YOU OFFER INTEGRATION SUPPORT?

**Yes.** We provide full **plant assessments**, certification training, installation, and ongoing 24/7 tech support.

# CONCLUSION: THE FUTURE OF ASPHALT DEMANDS PRECISION

At the end of the day, your customer demands results, not risks. Manual dosing, unverified blends, and plastic-laden fibres are shortcuts that cost more in the long run.

Surface Tech offers a system that is:

- **ASTM compliant**
- **EPD certified**
- **Digitally verified**
- **Third party lab & field testing/validation**

Call it fancy. We call it **better**.

Let us help you deliver performance that sticks.