

# Gelcoat Quality Guide

A guide to application faults and possible causes



# Common faults in gelcoat - Scott Bader has the answers



### COLOUR TEARING

- Pigment separated from resin
- Improper spray technique
- Long geltime, sagging



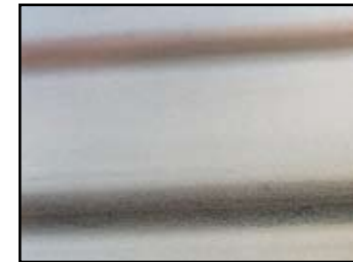
### COLOUR SEPARATION

- Insufficient mixing
- Sagging, drainage
- Poor gelcoat application



### COLOUR MOTTLING

- Gelcoat loow in thixotropy
- Poor pigment compatibility
- Viscosity too low



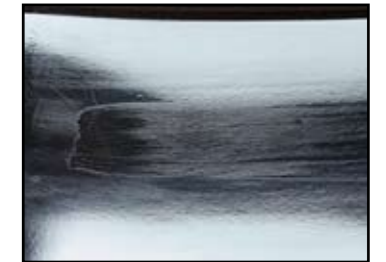
### COLOUR SPECKS

- Poorly ground/mixed pigments
- Contamination
- Poorly maintained equipment



### POROSITY

- Gelcoat too viscous to release air
- Cold gelcoat and/or mould
- Gelled too quickly, entrapping air



### 'WATER MARKING' ETCHING ON MOULD

- Areas of thin, double gelcoating on mould
- Two colours gelcoated on mould
- Solvent attack



### PARALLEL CRACKS

- Flex cracking
- Gelcoat too thick
- Laminate too thin/flexible



### STAR CRACKING

- Reverse impact
- Gelcoat too thick
- Crack pattern transferred from mould



### CRAZING

- Chemical attack
- Excessive heat
- Contamination



### DIMPLING

- Too heavy wet-on wet spray application
- Insufficient consolidation
- Contamination



### WRINKLING

- Insufficient cure
- Gelcoat too thin
- Back-up too rapid



### SAGGING

- Gelcoat too thick
- Gelttime too long
- Viscosity/thixotropy too low



### BLISTERS IN LAMINATES

- Water ingress
- Damp reinforcement
- Air voids



### GELCOAT BLISTERS

- Air voids on release
- Unreacted catalyst
- Solvent contamination



### FIBRE PATTERN

- Gelcoat too thin
- High exotherm in laminate
- Insufficient cure, released too soon



### GELCOAT PEELING

- Contamination
- Gelcoat too fully cured
- Geltime too long - release wax dissolved



### DE-WETTING (BRUSH)

- Brush gelcoat applied too thinly
- Incompatible release system
- Contamination



### DE-WETTING (SPRAY)

- Spray gelcoat applied too thinly
- Incompatible release system
- Contamination

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