## Ground Icing Checklist

### Contamination Check

<table>
<thead>
<tr>
<th>Component</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wings (top/bottom) tactile inspection</td>
<td>clear</td>
</tr>
<tr>
<td>Landing gear</td>
<td>clear</td>
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<tr>
<td>Horizontal stabilizer (top/bottom) tactile inspection</td>
<td>clear</td>
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<tr>
<td>Elevator/rudder control surfaces and gaps</td>
<td>clear</td>
</tr>
<tr>
<td>Aileron/flap/slats and gaps</td>
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</tr>
<tr>
<td>Engine/APU inlets</td>
<td>clear</td>
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<tr>
<td>Static ports/pitot tubes/sensors</td>
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<td>Fuselage</td>
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### Anticipating In-Flight Icing

- **Departure/En route/Destination**
  - SLD observed/expected: none
  - Icing observed/expected: none/acceptable
  - Assured exit strategy: planned

IF in-flight icing conditions are acceptable over entire route, continue. If not delay departure.

### Ground Icing

IF freezing precipitation or active frost, check if anti-ice is possible
1. Rotation speed ≥ 100 knots & Type I, II, III or IV fluids available OR Rotation speed < 100 knots & Type I or III fluids available
2. Available fluid will protect aircraft during time needed for ground ops. See HOT tables. Continue with de/anti-icing procedure as required.

### Before De/Anti-icing

IF de/anti-icing fluid will be used:
- Type I freezing point (refractometer reading) 
- Type II, III, IV glycol mixture

NOTE: Fluid should not be used for:
1) Moderate to heavy freezing rain
2) Heavy Snow
3) Ice Pellets

Aircraft positioned into wind (if possible)
- Engine/APU
- No spray zones

Use hot air/brushes on engine/APU inlets/sensors

### After De-icing Inspection

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Continue with anti-icing if freezing precipitation or active frost

### Before Anti-Icing

Communication with ground crew: assured
Responsibility for post-application inspection: stated

Final application start time

### After Anti-icing Inspection

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### Pre-Takeoff Check

Immediately prior departure, verify that aircraft is still clean. Use extreme caution if the HOT has expired.

- Wings: Visual/tactile inspection

**IF unsure or aircraft is contaminated, return for de-icing/anti-icing**
Contamination Check

Wings (top/bottom) tactile inspection ........................................... clear
Landing gear ................................................................................ clear
Horizontal stabilizer (top/bottom) tactile inspection ....................... clear
Elevator/rudder control surfaces and gaps ...................................... clear
Aileron/flap/slots and gaps ............................................................. clear
Engine/APU inlets ........................................................................ clear
Static ports/pitot tubes/sensors ...................................................... clear
Fuselage ...................................................................................... clear

Anticipated In Flight Icing

Departure/En route/Destination
  Icing observed/expected ............................................................... none

IF in-flight icing is expected anywhere along the planned route, delay departure.

Ground Icing

Freezing precipitation ................................................................. none
IF there is freezing precipitation on the ground, delay departure.

IF active frost is present, check if anti-ice is possible
1. Rotation speed ≥ 100 knots & Type I, II, III or IV fluids available OR
   Rotation speed < 100 knots & Type I or III fluids available
2. Available fluid will protect aircraft during time needed for ground ops. For active frost, professionally applied Type I will normally protect 45 minutes. If applied with a handheld sprayer, this time is likely to be reduced.

Continue with de-icing procedure

Before De/Anti-icing

IF de-icing fluid will be used:
  Aircraft positioned into wind (if possible)
  No spray zones ......................................................................... briefed
  Use hot air/brushes on engine/APU inlets/sensors ....................... assured
  Communication with ground crew .............................................. stated

After De-icing Inspection

Wings (top/bottom) tactile inspection ........................................... clear
Landing gear ................................................................................ clear
Horizontal stabilizer (top/bottom) tactile inspection ....................... clear
Flight Control gaps ...................................................................... clear
Static ports/pitot tubes/sensors ...................................................... clear
Fuselage ...................................................................................... clear

Continue with anti-icing if active frost present

Before Anti-Icing (Active Frost only)

Communication with ground crew .............................................. assured
Responsibility for post-application inspection ............................ stated

Final application start time ____________________________

After Anti-Icing Inspection

Wings (top/bottom) tactile inspection ........................................... clear
Horizontal stabilizer (top/bottom) tactile inspection ....................... clear
Flight control gaps ...................................................................... clear
Static ports/pitot tubes/sensors ...................................................... clear

Pre-Takeoff Check

Immediately prior to departure, verify that aircraft is still clean:

Wings ...................................................................................... Visual/tactile inspection

IF unsure or aircraft is contaminated, return for de-icing/anti-icing