



## Approved Spray Application Equipment for DuraShield 210, DuraShield 210-61 and DuraShield 310 Polyurethanes

### I. DuraShield 210/DuraShield 210-61

#### A. Hydraulic Spray Machine – 2:1 (Resin:Activator) volumetric ratio

1. Graco/Gusmer H-35 or HXP3 Spray Machine or comparable
  - a) Setup #1: Resin #80 cylinder; Activator #40 cylinder
  - b) Setup #2: Resin #120 cylinder; Activator #60 cylinder
2. Transfer Pumps
  - a) Resin: 5:1 Graco Monark or larger
  - b) Activator: 2:1 Graco FastFlo, 5:1 Graco Monark or larger
3. Mixers/Spray Guns
  - a) Graco Restrictor Manifold (Restrictors – Resin 0.032”, Activator 0.024”) or similar; two 8” long by ¼” diameter spiral tube mixers or one 5” Simpson static mixer; Graco Flex Gun or comparable. Acceptable tips and whip lines are as follows:
    - Whip lines: ¼” high-pressure spray line no more than 15’ in length.
    - Spray tips: 0.021” minimum.
  - b) Remote manifold with ⅜” x ¼” heated lines; two 8” long by ¼” diameter spiral tube mixers or one 5” Simpson static mixer; Graco Flex Gun or comparable. Acceptable tips and whip lines are as follows:
    - Whip lines: ¼” high-pressure spray line no more than 15’ in length.
    - Spray tips: 0.021” minimum.
  - c) Impingement-mix setup using Graco Fusion Air or Mechanical Purge Gun with 2:1 module (i.e. AR2232 or AR2942 for Air Purge and XF2332 for Mechanical Purge). Fusion Air Purge Gun must have an extension adapter for a contractor flat tip. Acceptable tips for each module size are as follows:
    - AR2232: 0.035” to 0.040”
    - AR2942: 0.046” to 0.052”
    - XF2332: 0.038”
4. Application Temperatures
  - a) Static Mix Setup
    - (1) Resin: 110°F to 160 °F
    - (2) Activator: 90°F to 160 °F
    - (3) Line Temperature: 110°F to 160 °F
  - b) Impingement-Mix Setup
    - (1) Resin: 130°F to 160 °F
    - (2) Activator: 130°F to 160 °F
    - (3) Line Temperature: 130°F to 160 °F
5. Spray pressures: 2000 psi minimum at the gun.

#### B. Pneumatic Spray Machine

1. Graco HydraCat with King Airhead – 2:1 ratio (Resin:Activator) or comparable
2. Transfer Pumps
  - a) Resin: 5:1 Graco Monark or larger

**RECOMMENDED SPRAY EQUIPMENT FOR LIFE<sup>LAST</sup> DURASHIELD 210, DURASHIELD 210-61  
AND DURASHIELD 310 POLYURETHANES**

- b) Activator: 2:1 Graco FastFlo, 5:1 Graco Monark or larger
3. Mixers/Spray Guns
  - a) Graco Restrictor Manifold (Restrictors – Resin 0.032”, Activator 0.024”) or similar; two 8” long by ¼” diameter spiral tube mixers or one 5” Simpson static mixer; Graco Flex Gun or comparable. Acceptable tips and whip lines are as follows:
    - Whip lines: ¼” high-pressure spray line no more than 15’ in length.
    - Spray tips: 0.021” minimum.
  - b) Remote manifold with ⅜” x ¼” heated lines; two 8” long by ¼” diameter spiral tube mixers or one 5” Simpson static mixer; Graco Flex Gun or comparable. Acceptable tips and whip lines are as follows:
    - Whip lines: ¼” high-pressure spray line no more than 15’ in length.
    - Spray tips: 0.021” minimum.
  - c) Impingement-mix – NOT ACCEPTABLE
4. Application Temperatures
  - a) Static Mix Setup
    - (1) Resin: 110°F to 160 °F
    - (2) Activator: 90°F to 160 °F
    - (3) Line Temperature: 110°F to 160 °F
  - b) Impingement-Mix Setup – NOT APPLICABLE
5. Spray pressures: 2000 psi minimum at the gun.

## **II. DuraShield 310**

### **A. Hydraulic Spray Machine – 3:1 (Resin:Activator) volumetric ratio**

1. Graco/Gusmer H-35 or HXP3 Hydraulic Spray Machine with #120 (Resin) and #40 (Activator) cylinder setup or comparable.
2. Transfer Pumps
  - a) Resin: 5:1 Graco Monark or larger
  - b) Activator: 2:1 Graco FastFlo, 5:1 Graco Monark or larger
3. Mixers/Spray Guns
  - a) Graco Restrictor Manifold (Restrictors – Resin 0.040”, Activator 0.024”) or similar; two 8” long by ¼” diameter spiral tube mixers; Graco Flex Gun or comparable. Acceptable tips and whip lines are as follows:
    - Whip lines: ¼” high-pressure spray line no more than 75’ in length.
    - Spray tips: 0.021” minimum.
  - b) Remote manifold with ⅜” x ¼” heated lines; two 8” long by ¼” diameter spiral tube mixers; Graco Flex Gun or comparable. Acceptable tips and whip lines are as follows:
    - Whip lines: ¼” high-pressure spray line no more than 75’ in length.
    - Spray tips: 0.021” minimum.
  - c) Impingement-mix – NOT ACCEPTABLE
4. Application Temperatures
  - a) Static Mix Setup
    - (1) Resin: 120°F to 160°F
    - (2) Activator: 80°F to 160°F
    - (3) Line Temperature: 120°F to 160°F
  - b) Impingement-Mix Setup – NOT APPLICABLE
5. Spray pressures: 2000 psi minimum at the gun.

### **B. Pneumatic Spray Machine**

1. Graco HydraCat with King Airhead – 3:1 ratio (Resin:Activator) or comparable
2. Transfer Pumps

***RECOMMENDED SPRAY EQUIPMENT FOR LIFELAST DURASHIELD 210, DURASHIELD 210-61  
AND DURASHIELD 310 POLYURETHANES***

- a) Resin: 5:1 Graco Monark or larger
- b) Activator: 2:1 Graco FastFlo, 5:1 Graco Monark or larger
3. Mixers/Spray Guns
  - a) Graco Restrictor Manifold (Restrictors – Resin 0.040”, Activator 0.024”) or similar; two 8” long by 1/4” diameter spiral tube mixers; Graco Flex Gun or comparable. Acceptable tips and whip lines are as follows:
    - Whip lines: 1/4” high-pressure spray line no more than 75’ in length.
    - Spray tips: 0.021” minimum.
  - b) Remote manifold with 3/8” x 1/4” heated lines; two 8” long by 1/4” diameter spiral tube mixers; Graco Flex Gun or comparable. Acceptable tips and whip lines are as follows:
    - Whip lines: 1/4” high-pressure spray line no more than 75’ in length.
    - Spray tips: 0.021” minimum.
  - c) Impingement-mix – NOT ACCEPTABLE
4. Application Temperatures
  - a) Static Mix Setup
    - (1) Resin: 120°F to 160°F
    - (2) Activator: 80°F to 160°F
    - (3) Line Temperature: 120°F to 160°F
  - b) Impingement-Mix Setup – NOT APPLICABLE
5. Spray pressures: 2000 psi minimum at the gun.