



Saflex® Customer Service Lab – Louvain-La-Neuve

## LAMINATE TESTING SERVICE

Analysis report prepared

for

SAUDI AMERICAN GLASS FACTORY

Lines included are:

PRODUCTION ONE

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Customer Data

Laminates

| Roll number | Mfg date   | Part Number | Comment | PVB Type |
|-------------|------------|-------------|---------|----------|
| SAMPLE 01   | 06/01/2010 | RB 11       |         | RB11     |
| SAMPLE 02   | 06/01/2010 | RB 41       |         | RB41     |
| SAMPLE 03   | 06/01/2010 |             |         | RB61     |
| SAMPLE 04   | 06/01/2010 | RB 71       |         | RB71     |

Solutia Results

Configuration

| Roll number | GL Col | GL Thk (mm) | GL Ornt | PVB  | Sht Col | GL Ornt | GL Thk (mm) | GL Col |
|-------------|--------|-------------|---------|------|---------|---------|-------------|--------|
| SAMPLE 01   | Clear  | 3.85        | Air     | RB11 | 000000  | Tin     | 3.83        | Clear  |
| SAMPLE 02   | Clear  | 3.83        | Air     | RB41 | 000000  | Tin     | 3.83        | Clear  |
| SAMPLE 03   | Clear  | 3.76        | Air     | RB61 | 000000  | Tin     | 3.76        | Clear  |
| SAMPLE 04   | Clear  | 3.81        | Air     | RB71 | 000000  | Tin     | 3.80        | Clear  |

Bake

First bubbles at:

| Roll number | Sample | Lam | PVB Type | Bake (°C) |
|-------------|--------|-----|----------|-----------|
| SAMPLE 01   | 01     | A   | RB11     | 150       |
| SAMPLE 02   | 02     | A   | RB41     | 110       |
| SAMPLE 03   | 03     | A   | RB61     | 140       |
| SAMPLE 04   | 04     | A   | RB71     | 150       |

Boil

| Roll number | Sample | Lam | PVB Type | After 2 hours | After 8 hours |
|-------------|--------|-----|----------|---------------|---------------|
| SAMPLE 01   | 01     | A   | RB11     | OK            | OK            |
| SAMPLE 02   | 02     | A   | RB41     | OK            | OK            |
| SAMPLE 03   | 03     | A   | RB61     | OK            | OK            |
| SAMPLE 04   | 04     | A   | RB71     | OK            | OK            |

Moisture

| Roll number | Sample | Lam | PVB Type | %    | %    |
|-------------|--------|-----|----------|------|------|
| SAMPLE 01   | 01     | A   | RB11     | 0.46 | 0.46 |
| SAMPLE 02   | 02     | A   | RB41     | 0.51 | 0.50 |
| SAMPLE 03   | 03     | A   | RB61     | 0.40 | 0.39 |
| SAMPLE 04   | 04     | A   | RB71     | 0.42 | 0.42 |

Pummel

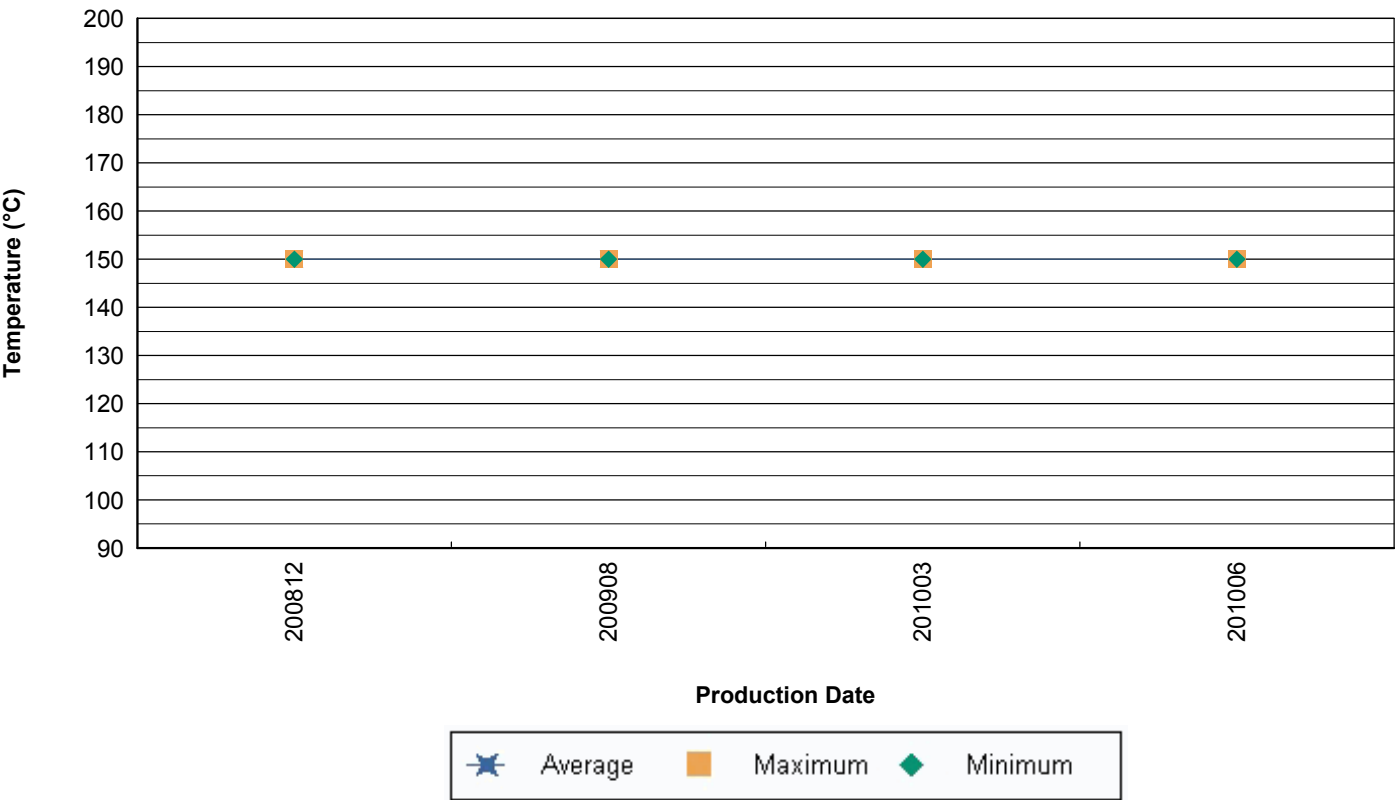
| Roll number | Sample | Lam | PVB Type | Pummel IB | Pummel OB | Avg Pu |
|-------------|--------|-----|----------|-----------|-----------|--------|
| SAMPLE 01   | 01     | A   | RB11     | 4.5       | 5.5       | 5.0    |
| SAMPLE 02   | 02     | A   | RB41     | 4.0       | 5.0       | 4.5    |
| SAMPLE 03   | 03     | A   | RB61     | 4.0       | 5.0       | 4.5    |
| SAMPLE 04   | 04     | A   | RB71     | 4.0       | 5.0       | 4.5    |

Data for project : ESAU-10-06-LLN-0010 and Line Number : PRODUCTION ONE

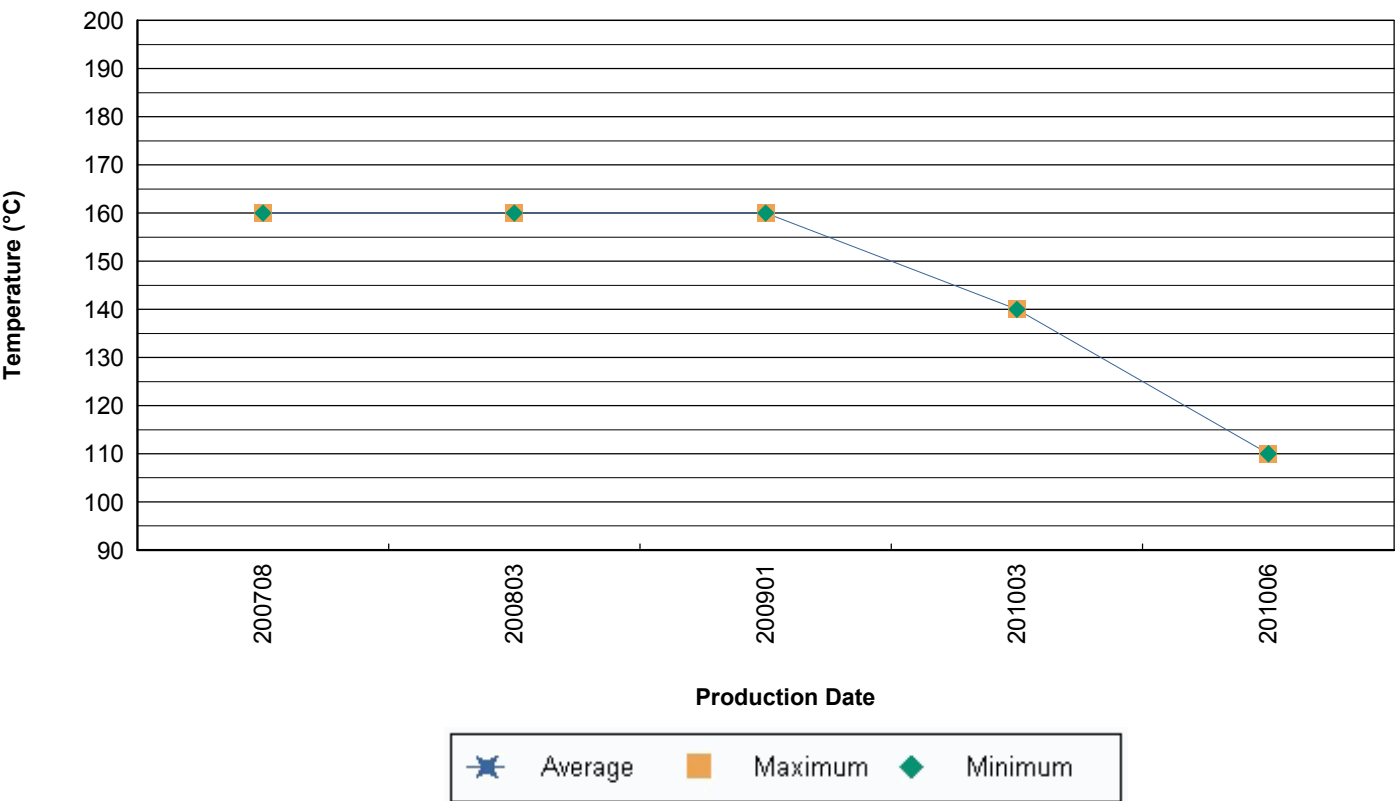
Historical Data

|      |         | Avg Moist<br>(%) | Avg PU<br>(PU) | Avg Thk<br>(mm) | Bake<br>(°C) | Boil<br>(-) |
|------|---------|------------------|----------------|-----------------|--------------|-------------|
| RB11 | 12/2008 | 0.44             | 4.8            |                 | 150          | OK          |
|      | 8/2009  | 0.43             | 5.5            | 0.00            | 150          | OK          |
|      | 3/2010  | 0.44             | 6.0            | 0.38            | 150          | OK          |
|      | 6/2010  | 0.46             | 5.0            | 0.37            | 150          | OK          |
| RB41 | 8/2007  | 0.44             | 2.5            |                 | 160          | OK          |
|      | 3/2008  | 0.45             | 6.0            |                 | 160          | OK          |
|      | 1/2009  | 0.44             | 4.8            |                 | 160          | OK          |
|      | 5/2009  | 0.43             | 6.7            | 0.00            | 0.0          | OK          |
|      | 3/2010  | 0.42             | 4.5            | 0.77            | 140          | OK          |
|      | 6/2010  | 0.51             | 4.5            | 0.74            | 110          | OK          |
| RB61 | 8/2007  | 0.46             | 4.0            |                 | 160          | OK          |
|      | 1/2009  | 0.41             | 4.8            |                 | 150          | OK          |
|      | 6/2009  | 0.44             | 6.8            | 0.00            | 0.0          | OK          |
|      | 8/2009  | 0.41             | 5.0            | 0.00            | 0.0          | OK          |
|      | 3/2010  | 0.44             | 3.3            | 1.14            | 140          | OK          |
|      | 6/2010  | 0.40             | 4.5            | 1.14            | 140          | OK          |
| RB71 | 5/2006  | 0.42             | 6.3            |                 | 153          | OK          |
|      | 8/2007  | 0.44             | 5.3            |                 | 170          | OK          |
|      | 12/2008 | 0.43             | 6.3            |                 | 170          | OK          |
|      | 6/2009  | 0.43             | 5.3            | 0.00            | 0.0          | OK          |
|      | 7/2009  | 0.39             | 6.0            | 0.00            | 0.0          | OK          |
|      | 6/2010  | 0.42             | 4.5            | 1.53            | 150          | OK          |

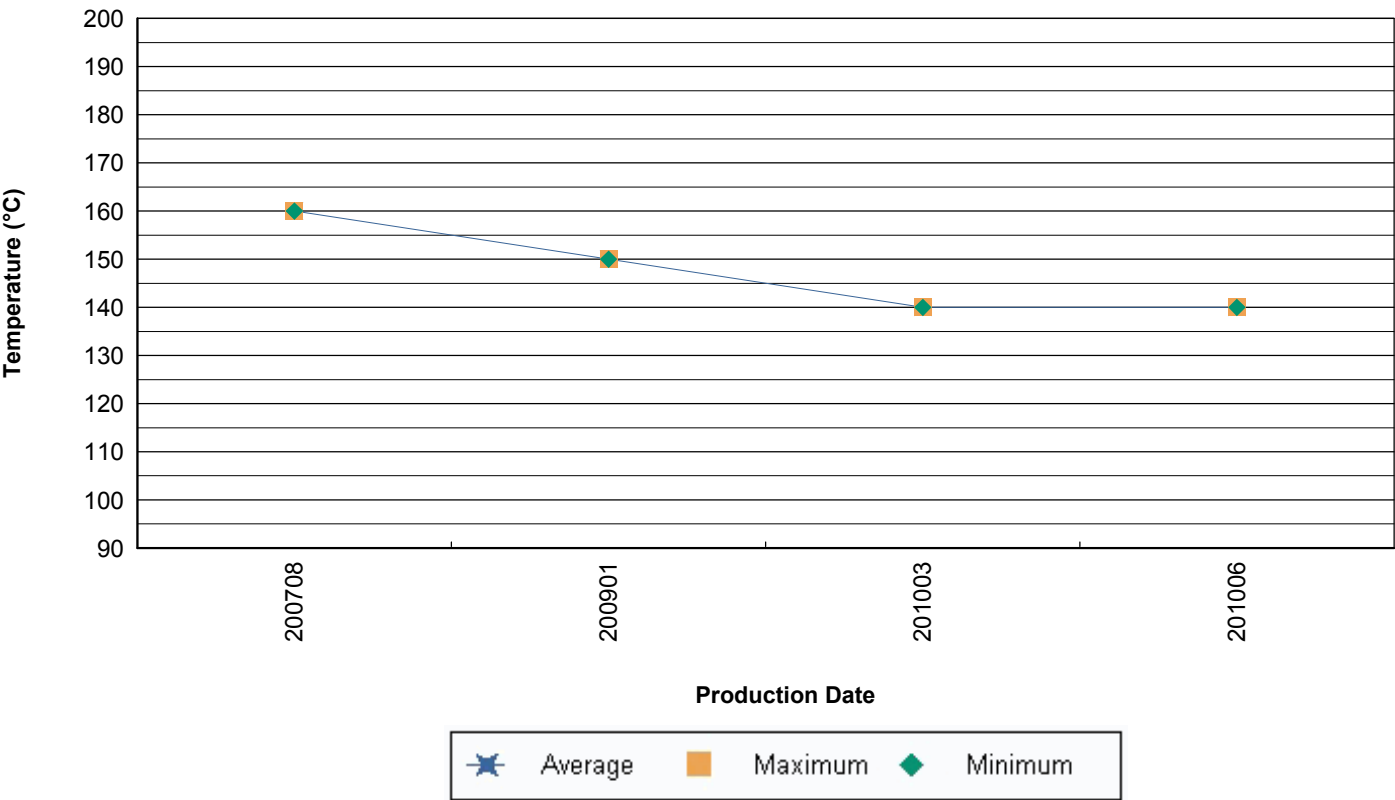
Bake Overview for RB11



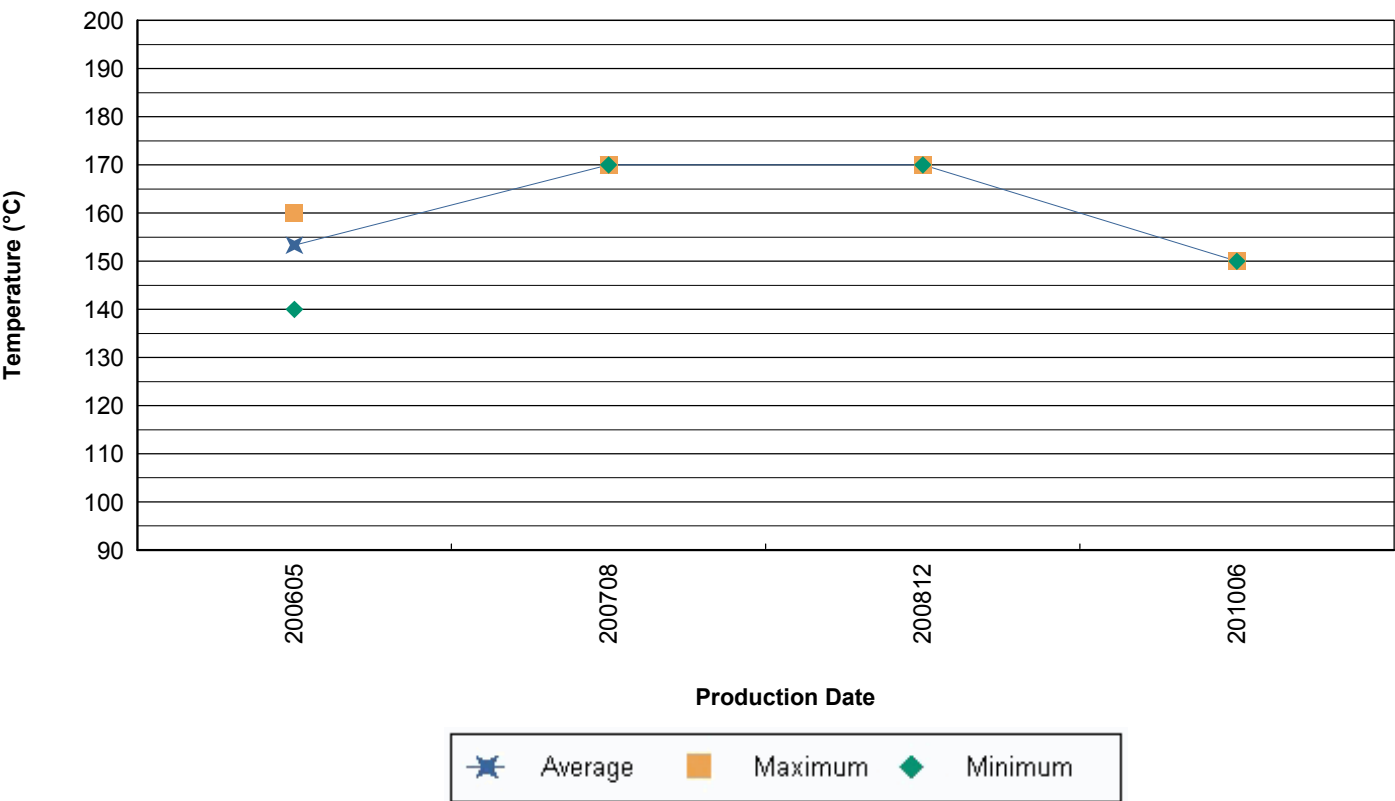
Bake Overview for RB41



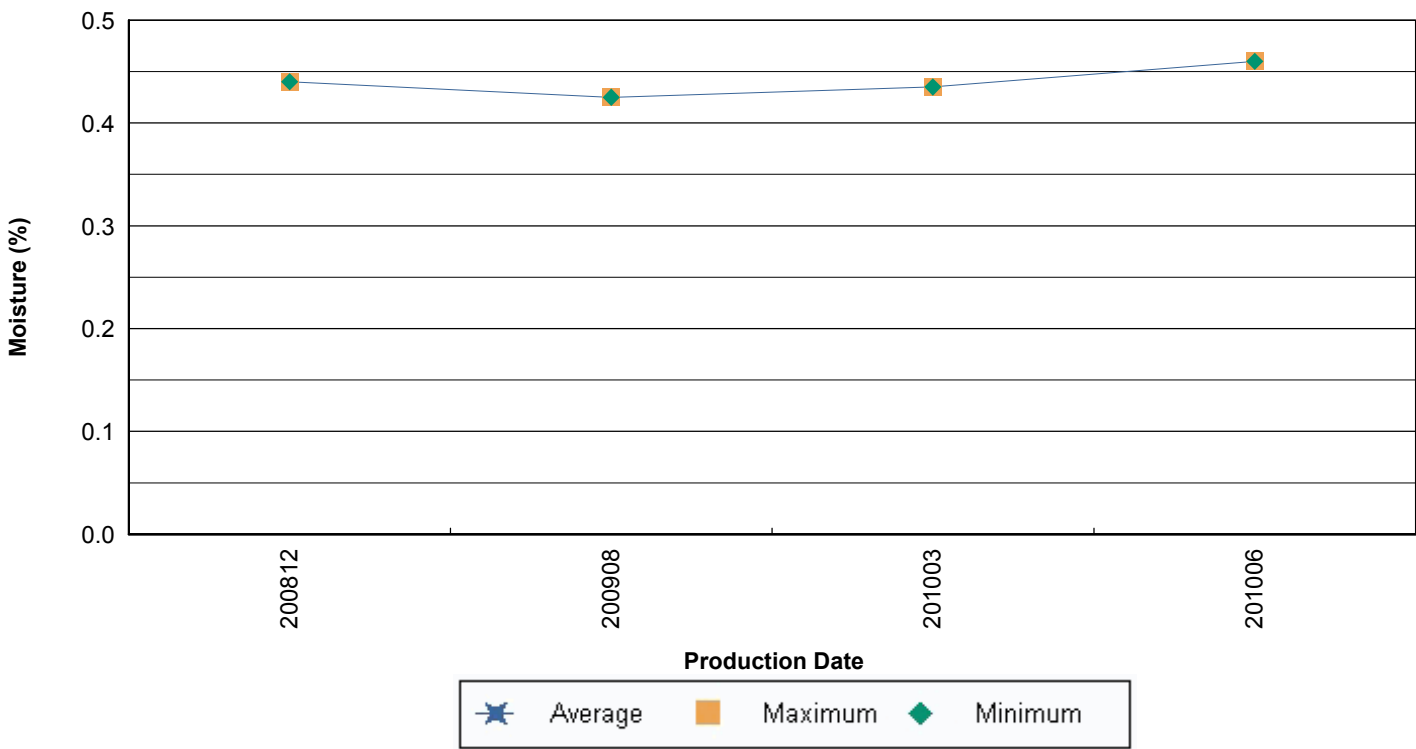
Bake Overview for RB61



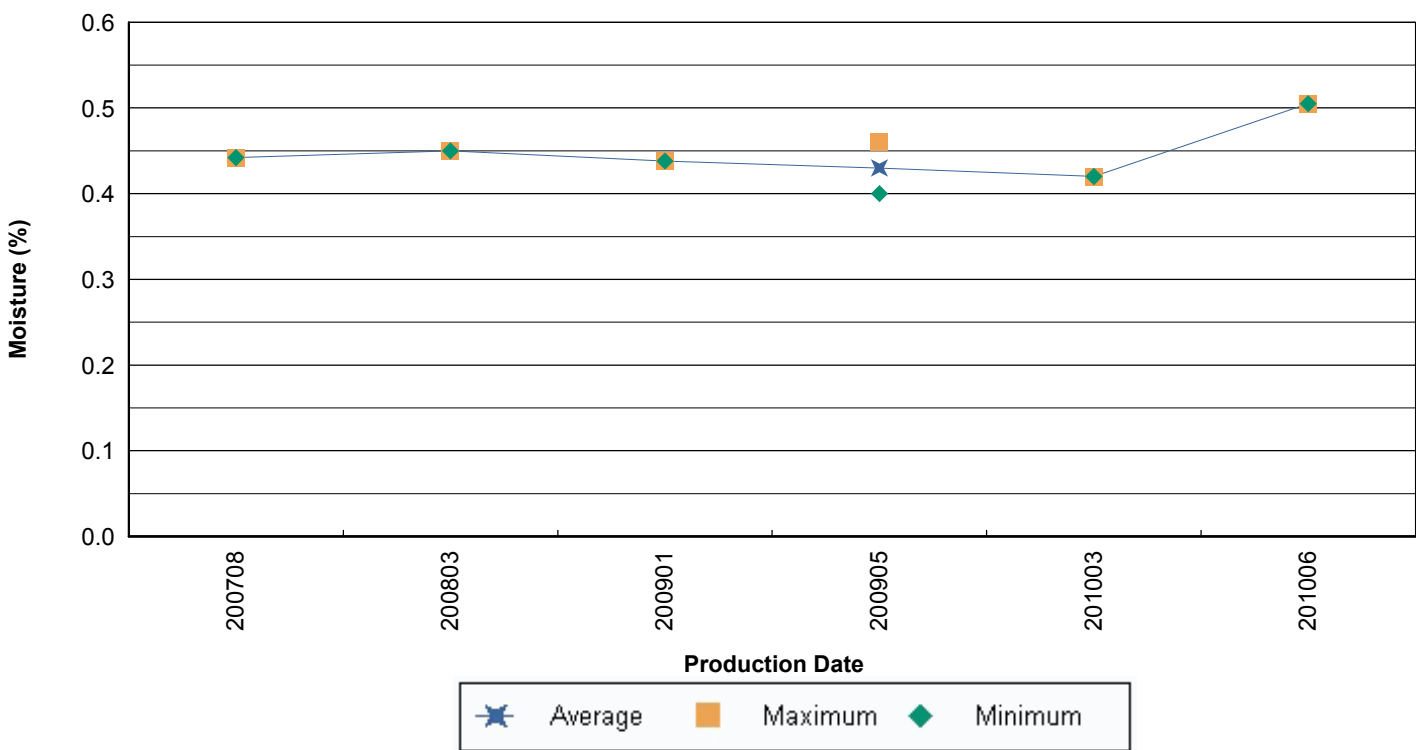
Bake Overview for RB71



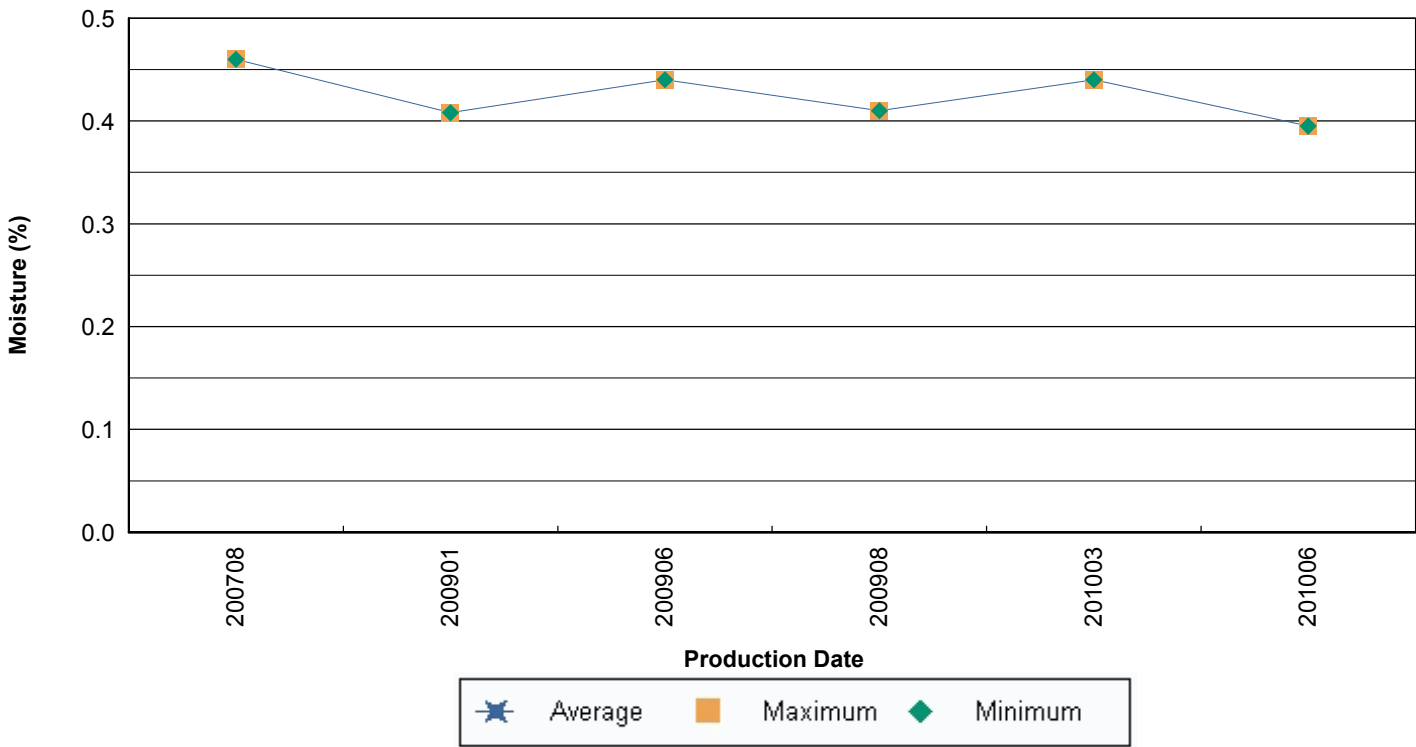
Moisture Overview for RB11



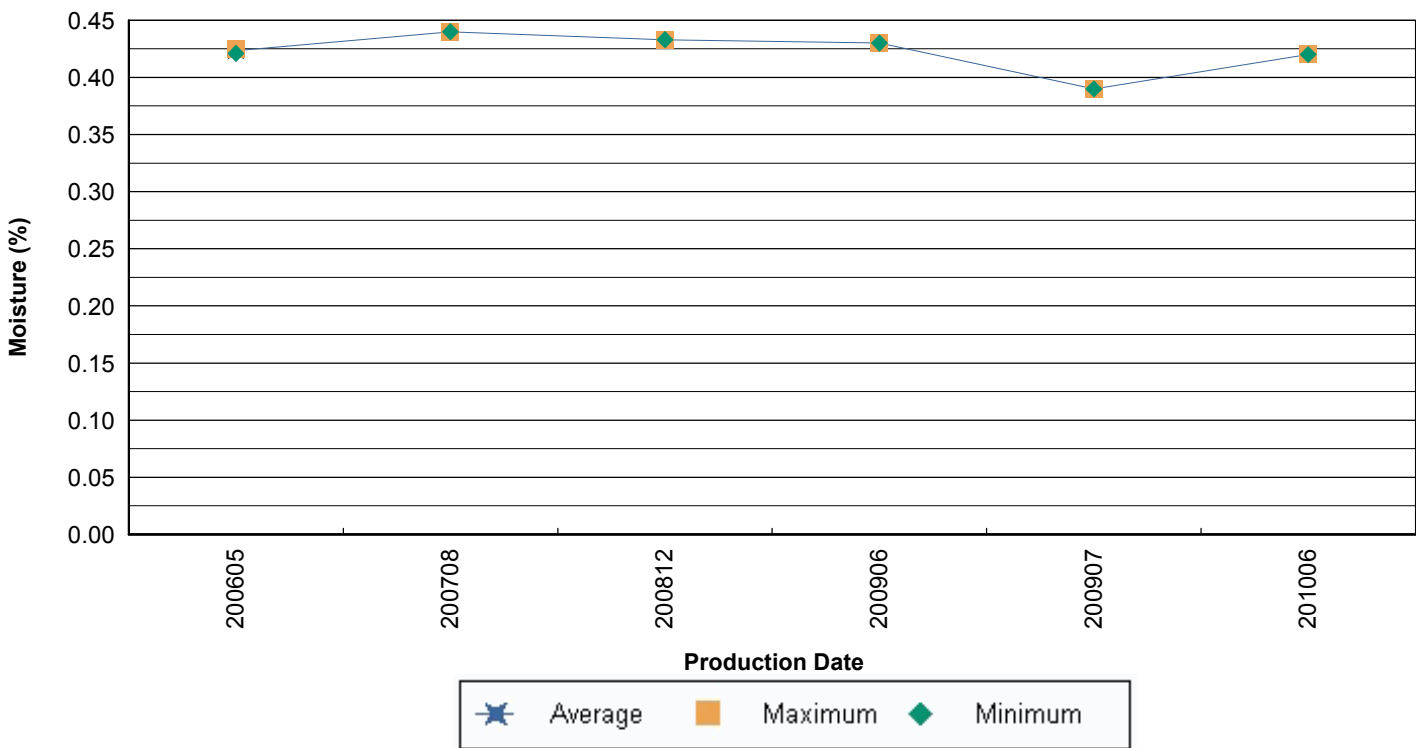
Moisture Overview for RB41



Moisture Overview for RB61

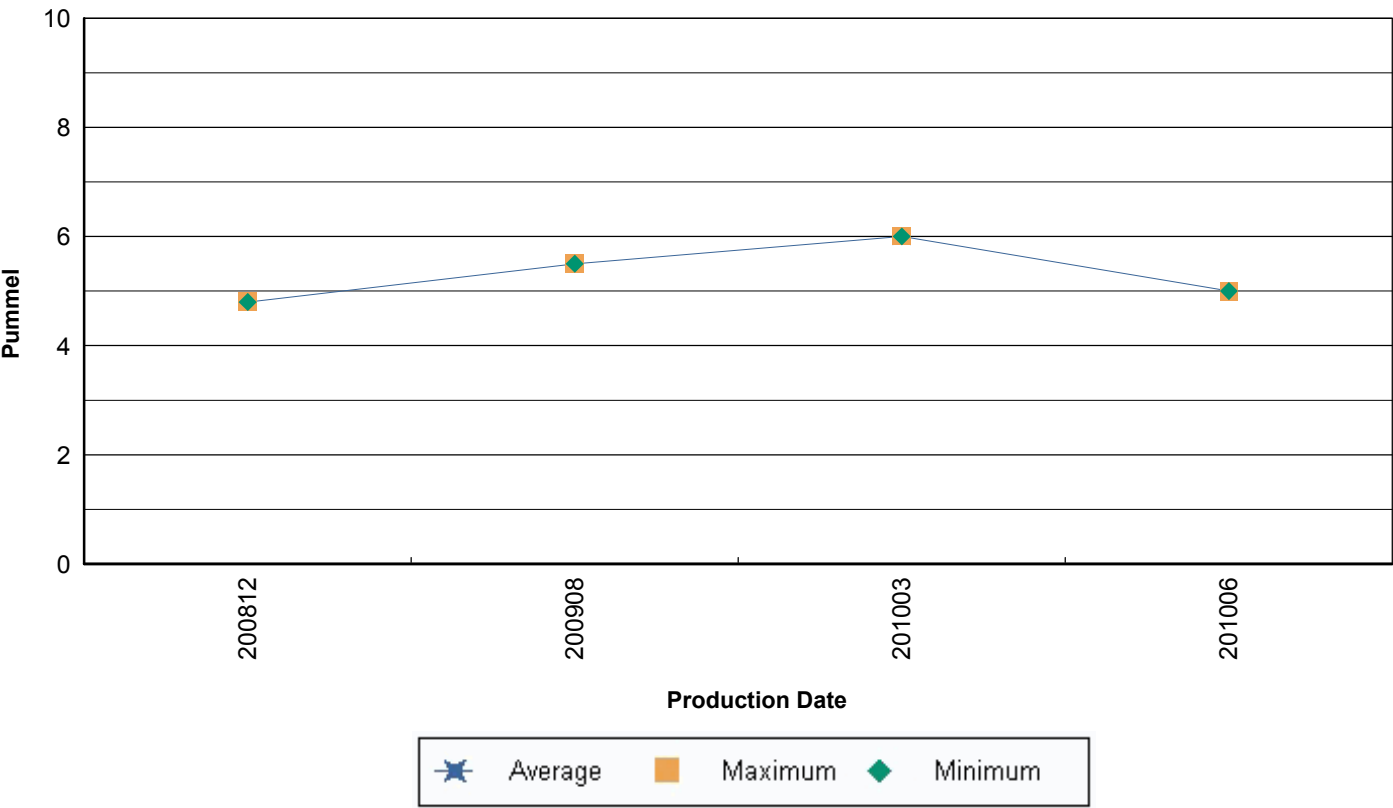


Moisture Overview for RB71

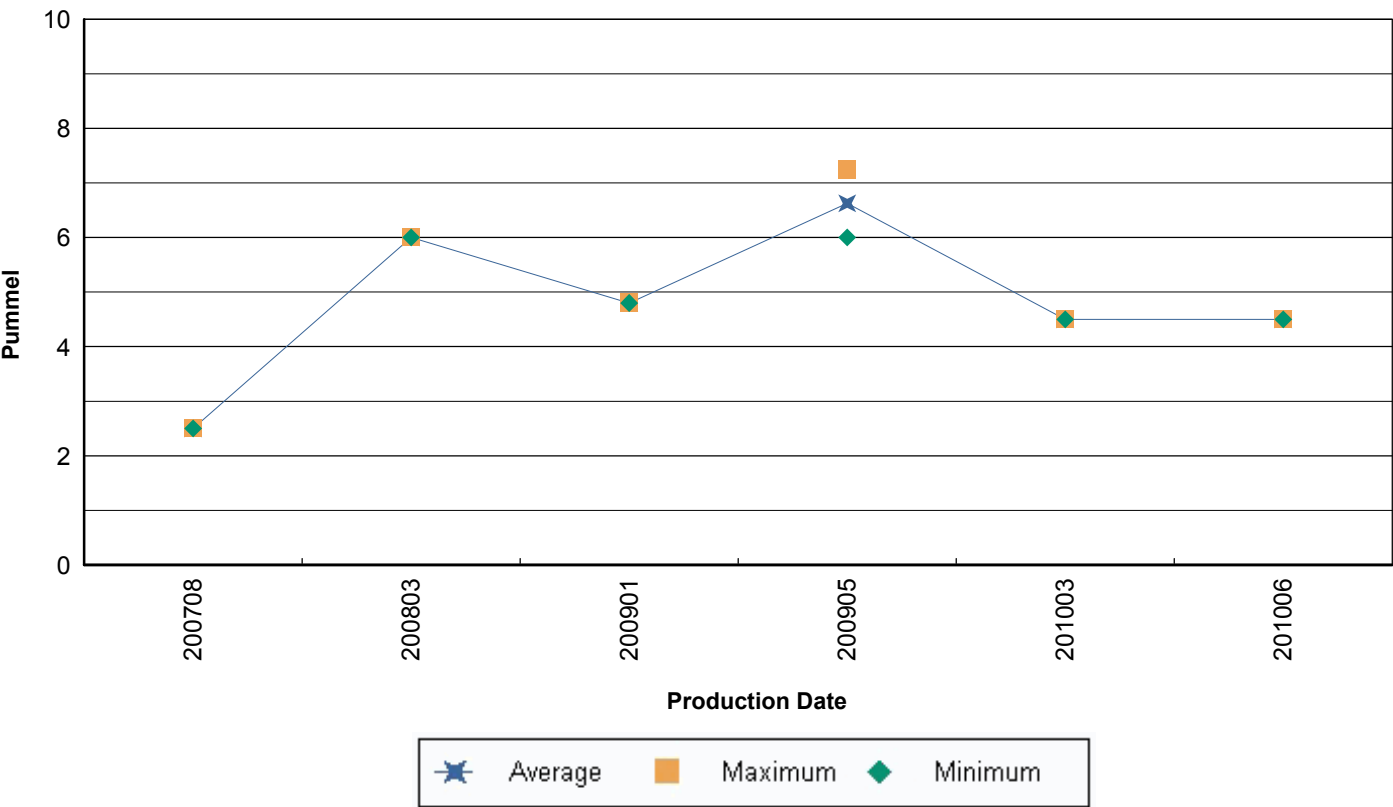




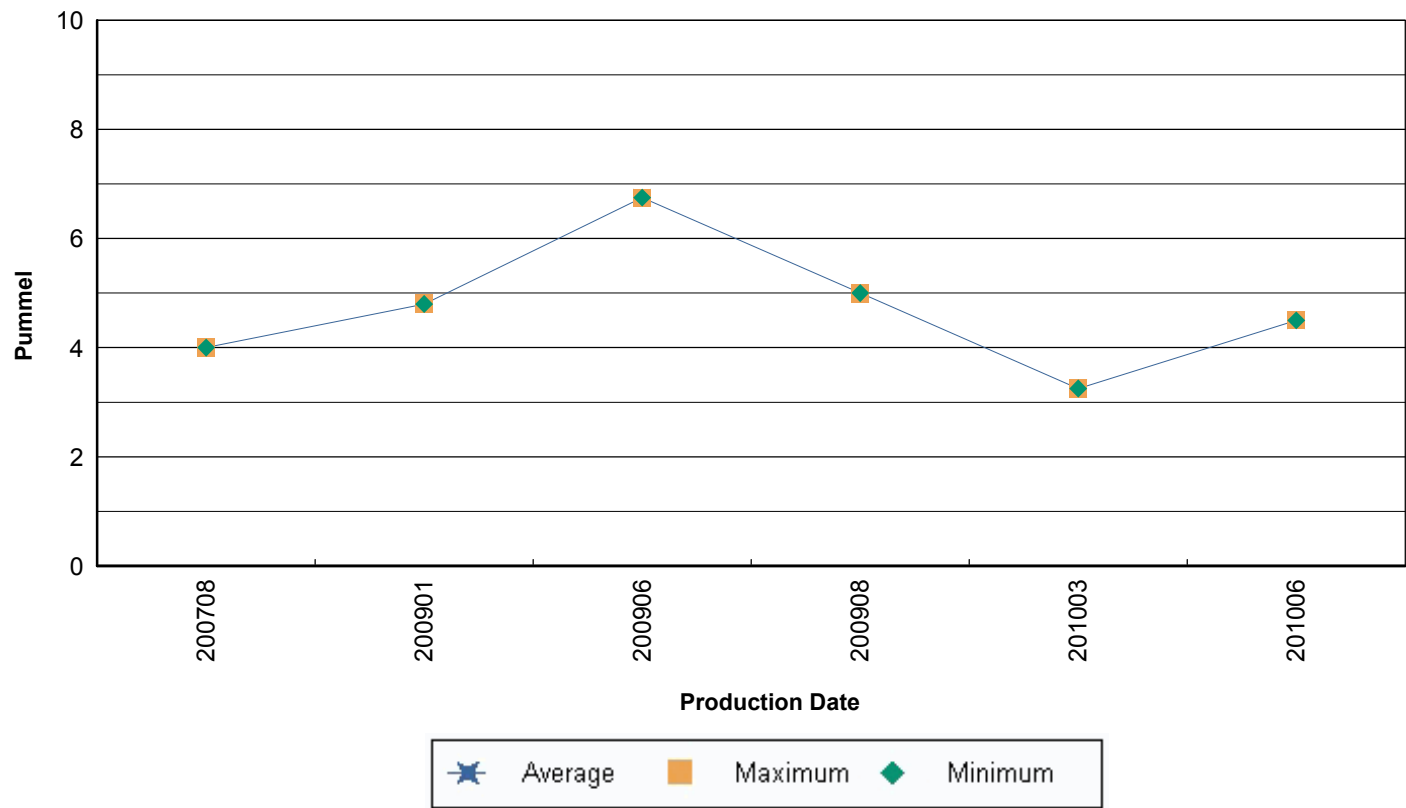
Pummel Overview for RB11



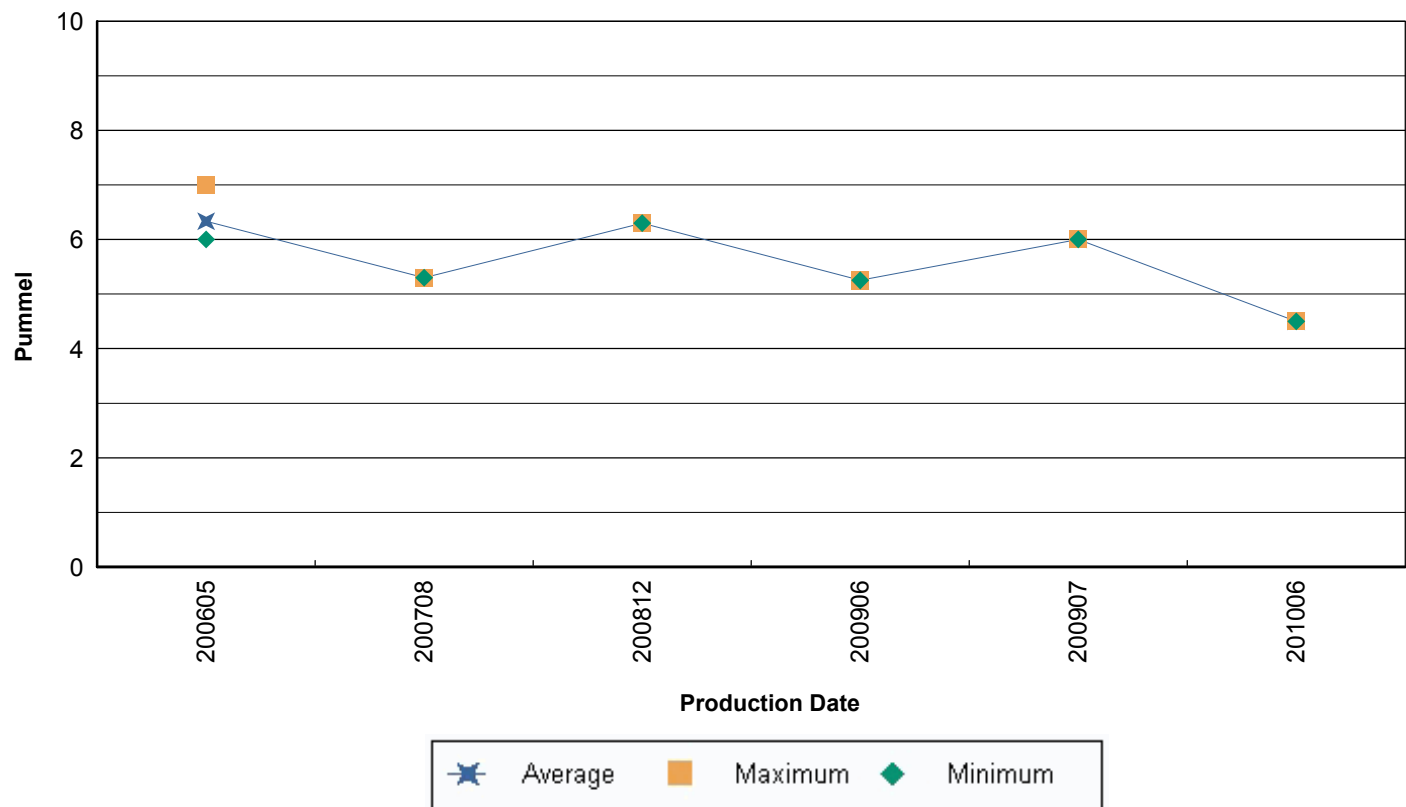
Pummel Overview for RB41



Pummel Overview for RB61



Pummel Overview for RB71



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