

## American Bitter 2

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- Gravity **11 BLG**
- ABV ---
- IBU **18**
- SRM **6.1**
- Style **Special/Best/Premium Bitter**

### Batch size

- Expected quantity of finished beer **175 liter(s)**
- Trub loss **1 %**
- Size with trub loss **180.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **2 %/h**
- Boil size **189.2 liter(s)**

### Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **126 liter(s)**
- Total mash volume **157.5 liter(s)**

### Steps

- Temp **64 C**, Time **40 min**
- Temp **68 C**, Time **20 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **3 min**

### Mash step by step

- Heat up **126 liter(s)** of strike water to **69.5C**
- Add grains
- Keep mash **40 min** at **64C**
- Keep mash **20 min** at **68C**
- Keep mash **10 min** at **72C**
- Keep mash **3 min** at **78C**
- Sparge using **94.7 liter(s)** of **76C** water or to achieve **189.2 liter(s)** of wort

### Fermentables

| Type  | Name                       | Amount        | Yield | EBC |
|-------|----------------------------|---------------|-------|-----|
| Grain | Strzegom Pale Ale          | 30 kg (95.2%) | 79 %  | 6   |
| Grain | Caramel/Crystal Malt - 10L | 1.5 kg (4.8%) | 75 %  | 160 |

### Hops

| Use for   | Name       | Amount | Time     | Alpha acid |
|-----------|------------|--------|----------|------------|
| Boil      | Citra      | 100 g  | 60 min   | 12 %       |
| Boil      | Cascade    | 50 g   | 2 min    | 6 %        |
| Boil      | Centennial | 50 g   | 2 min    | 10.5 %     |
| Whirlpool | Cascade    | 50 g   | 2 min    | 6 %        |
| Whirlpool | Centennial | 50 g   | 30 min   | 10.5 %     |
| Whirlpool | Amarillo   | 50 g   | 30 min   | 9.5 %      |
| Whirlpool | Simcoe     | 50 g   | 30 min   | 13.2 %     |
| Whirlpool | Mosaic     | 50 g   | 30 min   | 10 %       |
| Dry Hop   | Amarillo   | 50 g   | 7 day(s) | 9.5 %      |
| Dry Hop   | Simcoe     | 50 g   | 7 day(s) | 13.2 %     |

|         |        |      |          |      |
|---------|--------|------|----------|------|
| Dry Hop | Mosaic | 50 g | 7 day(s) | 10 % |
|---------|--------|------|----------|------|

## Yeasts

| Name        | Type | Form  | Amount | Laboratory |
|-------------|------|-------|--------|------------|
| Safale S-04 | Ale  | Slant | 200 ml | Safale     |