

## Test

- Gravity **13.8 BLG**
- ABV **5.7 %**
- IBU **28**
- SRM **4.1**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **10 %**
- Size with trub loss **14.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **25 %/h**
- Boil size **21.8 liter(s)**

### Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3.75 liter(s) / kg**
- Mash size **13.3 liter(s)**
- Total mash volume **16.9 liter(s)**

### Steps

- Temp **50 C**, Time **0 min**
- Temp **67 C**, Time **50 min**
- Temp **78 C**, Time **10 min**

### Mash step by step

- Heat up **13.3 liter(s)** of strike water to **54C**
- Add grains
- Keep mash **0 min** at **50C**
- Keep mash **50 min** at **67C**
- Keep mash **10 min** at **78C**
- Sparge using **12.1 liter(s)** of **76C** water or to achieve **21.8 liter(s)** of wort

### Fermentables

| Type  | Name                      | Amount         | Yield | EBC |
|-------|---------------------------|----------------|-------|-----|
| Grain | Weyermann - Pilsner Malt  | 1.5 kg (42.1%) | 81 %  | 5   |
| Grain | Weyermann - Pale Ale Malt | 1.5 kg (42.1%) | 85 %  | 7   |
| Grain | Oats, Flaked              | 0.5 kg (14%)   | 80 %  | 2   |
| Grain | Weyermann - Carapils      | 0.06 kg (1.7%) | 78 %  | 4   |

### Hops

| Use for   | Name     | Amount | Time     | Alpha acid |
|-----------|----------|--------|----------|------------|
| Boil      | Citra    | 5 g    | 60 min   | 13.5 %     |
| Boil      | Citra    | 5 g    | 0 min    | 13.5 %     |
| Whirlpool | Citra    | 15 g   | 30 min   | 13.5 %     |
| Whirlpool | Amarillo | 15 g   | 30 min   | 9.5 %      |
| Dry Hop   | Citra    | 10 g   | 3 day(s) | 13.5 %     |
| Dry Hop   | Amarillo | 10 g   | 3 day(s) | 9.5 %      |
| Dry Hop   | Citra    | 28 g   | 3 day(s) | 13.5 %     |
| Dry Hop   | Amarillo | 25 g   | 3 day(s) | 9.5 %      |

**Yeasts**

| Name         | Type | Form | Amount | Laboratory |
|--------------|------|------|--------|------------|
| Safale US-05 | Ale  | Dry  | 11.5 g | Fermentis  |