

## Session APA 1.0

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- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **32**
- SRM **3.6**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **31.7 liter(s)**

### Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **19.4 liter(s)**
- Total mash volume **25.8 liter(s)**

### Steps

- Temp **66 C**, Time **60 min**
- Temp **76 C**, Time **10 min**

### Mash step by step

- Heat up **19.4 liter(s)** of strike water to **73.6C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **10 min** at **76C**
- Sparge using **18.8 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

### Fermentables

| Type  | Name                  | Amount         | Yield | EBC |
|-------|-----------------------|----------------|-------|-----|
| Grain | Płatki owsiane        | 0.2 kg (3.1%)  | 75 %  | 3   |
| Grain | Pilzneński            | 4.5 kg (69.8%) | 81 %  | 3.5 |
| Grain | Rice, Flaked          | 0.25 kg (3.9%) | 70 %  | 2   |
| Grain | Weyermann - Carapils  | 0.5 kg (7.8%)  | 78 %  | 3.5 |
| Grain | Maris Otter Pale Malt | 1 kg (15.5%)   | 80 %  | 5   |

### Hops

| Use for   | Name     | Amount | Time     | Alpha acid |
|-----------|----------|--------|----------|------------|
| Boil      | Citra    | 20 g   | 60 min   | 13.8 %     |
| Boil      | Amarillo | 20 g   | 15 min   | 8.2 %      |
| Whirlpool | Cascade  | 20 g   | 0 min    | 5.6 %      |
| Whirlpool | Amarillo | 20 g   | 0 min    | 8.2 %      |
| Whirlpool | Citra    | 20 g   | 0 min    | 13.8 %     |
| Dry Hop   | Equinox  | 30 g   | 7 day(s) | 15.4 %     |
| Dry Hop   | Amarillo | 10 g   | 7 day(s) | 8.2 %      |
| Dry Hop   | Equinox  | 20 g   | 5 day(s) | 15.4 %     |
| Dry Hop   | Equinox  | 50 g   | 2 day(s) | 15.4 %     |

|         |          |      |          |        |
|---------|----------|------|----------|--------|
| Dry Hop | Amarillo | 50 g | 2 day(s) | 8.2 %  |
| Dry Hop | Citra    | 50 g | 2 day(s) | 13.8 % |

### Yeasts

| Name         | Type | Form | Amount | Laboratory |
|--------------|------|------|--------|------------|
| Safale US-05 | Ale  | Dry  | 11 g   | Fermentis  |

### Extras

| Type  | Name     | Amount | Use for | Time  |
|-------|----------|--------|---------|-------|
| Other | wirflock | 0.5 g  | Boil    | 5 min |