

## Double APA

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- Gravity **17.1 BLG**
- ABV **7.3 %**
- IBU **95**
- SRM **16.4**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **16 liter(s)**
- Trub loss **5 %**
- Size with trub loss **16.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **20.2 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.5 liter(s)**
- Total mash volume **22 liter(s)**

### Steps

- Temp **67 C**, Time **60 min**
- Temp **72 C**, Time **15 min**

### Mash step by step

- Heat up **16.5 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **15 min** at **72C**
- Sparge using **9.2 liter(s)** of **76C** water or to achieve **20.2 liter(s)** of wort

### Fermentables

| Type  | Name                              | Amount         | Yield | EBC |
|-------|-----------------------------------|----------------|-------|-----|
| Grain | Bruntal ekstrakt słodowy Pale Ale | 4.5 kg (81.8%) | 80 %  | 35  |
| Grain | Carmel pale - Viking Malt         | 0.5 kg (9.1%)  | --- % | 10  |
| Grain | Chateau Abbey                     | 0.5 kg (9.1%)  | --- % | 45  |

### Hops

| Use for | Name      | Amount | Time     | Alpha acid |
|---------|-----------|--------|----------|------------|
| Boil    | Marynka   | 30 g   | 60 min   | 10 %       |
| Boil    | Citra     | 25 g   | 30 min   | 12 %       |
| Boil    | El Dorado | 25 g   | 30 min   | 15 %       |
| Boil    | Citra     | 10 g   | 1 min    | 12 %       |
| Dry Hop | Citra     | 20 g   | 3 day(s) | 12 %       |

### Yeasts

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