

## APA - warka #5

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- Gravity **14.3 BLG**
- ABV **5.9 %**
- IBU **34**
- SRM **11.6**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **17.4 liter(s)**
- Total mash volume **23.2 liter(s)**

### Steps

- Temp **68 C**, Time **60 min**
- Temp **78 C**, Time **0 min**

### Mash step by step

- Heat up **17.4 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **0 min** at **78C**
- Sparge using **13.7 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

### Fermentables

| Type  | Name   | Amount          | Yield  | EBC |
|-------|--|-----------------|--------|-----|
| Grain | Viking Pale Ale malt                                 | 4 kg (69%)      | 80 %   | 5   |
| Grain | Karmelowy Jasny<br>100-150 EBC -<br>Słodownia Optima | 0.75 kg (12.9%) | 72.9 % | 140 |
| Grain | Monachijski -<br>Słodownia Optima                    | 0.55 kg (9.5%)  | 78.9 % | 18  |
| Grain | Weyermann -<br>Carapils                              | 0.5 kg (8.6%)   | 78 %   | 4   |

### Hops

| Use for | Name    | Amount | Time     | Alpha acid |
|---------|---------|--------|----------|------------|
| Boil    | Cascade | 30 g   | 60 min   | 6 %        |
| Boil    | Cascade | 20 g   | 30 min   | 6 %        |
| Boil    | Citra   | 10 g   | 15 min   | 12 %       |
| Dry Hop | Citra   | 40 g   | 5 day(s) | 12 %       |

### Yeasts

| Name         | Type | Form | Amount | Laboratory |
|--------------|------|------|--------|------------|
| Safale US-05 | Ale  | Dry  | 22 g   | Fermentis  |