

APA - warka #5

- 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 100-150 EBC - Słodownia Optima | 0.75 kg (12.9%) | 72.9 % | 140 |
| Grain | Monachijski - Słodownia Optima | 0.55 kg (9.5%) | 78.9 % | 18 |
| Grain | Weyermann - 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 |