

asd

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- Gravity **16.6 BLG**
- ABV **7 %**
- IBU **67**
- SRM **6.5**
- Style **American IPA**

### Batch size

- Expected quantity of finished beer **14 liter(s)**
- Trub loss **5 %**
- Size with trub loss **14.7 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **17.7 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **14.1 liter(s)**
- Total mash volume **18.8 liter(s)**

### Steps

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

### Mash step by step

- Heat up **14.1 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Sparge using **8.3 liter(s)** of **76C** water or to achieve **17.7 liter(s)** of wort

### Fermentables

| Type  | Name      | Amount         | Yield | EBC |
|-------|-----------|----------------|-------|-----|
| Grain | pale ale  | 3.5 kg (74.5%) | --- % | 6   |
| Grain | wiedenski | 1 kg (21.3%)   | --- % | 10  |
| Grain | karmelowy | 0.2 kg (4.3%)  | --- % | 30  |

### Hops

| Use for             | Name       | Amount | Time   | Alpha acid |
|---------------------|------------|--------|--------|------------|
| Boil                | warrior    | 25 g   | 80 min | 16 %       |
| Aroma (end of boil) | Cascade PL | 50 g   | 5 min  | 5.2 %      |
| Boil                | ekuanot    | 10 g   | 5 min  | 11 %       |

### Yeasts

| Name      | Type | Form | Amount | Laboratory |
|-----------|------|------|--------|------------|
| safale 04 | Ale  | Dry  | 30 g   | safale     |