

## #44 projekt hoppy ale

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- Gravity **9.8 BLG**
- ABV **3.8 %**
- IBU **15**
- SRM **3.5**

### Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **10 %**
- Size with trub loss **16.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **20 %/h**
- Boil size **21.6 liter(s)**

### Mash information

- Mash efficiency **60 %**
- Liquor-to-grist ratio **6.5 liter(s) / kg**
- Mash size **24.1 liter(s)**
- Total mash volume **27.8 liter(s)**

### Steps

- Temp **65 C**, Time **70 min**
- Temp **78 C**, Time **5 min**

### Mash step by step

- Heat up **24.1 liter(s)** of strike water to **68.5C**
- Add grains
- Keep mash **70 min** at **65C**
- Keep mash **5 min** at **78C**
- Sparge using **1.2 liter(s)** of **76C** water or to achieve **21.6 liter(s)** of wort

### Fermentables

| Type  | Name       | Amount         | Yield | EBC |
|-------|------------|----------------|-------|-----|
| Grain | Pilzneński | 3 kg (81.1%)   | 81 %  | 4   |
| Grain | Pszeniczny | 0.7 kg (18.9%) | 85 %  | 4   |

### Hops

| Use for | Name                   | Amount | Time   | Alpha acid |
|---------|------------------------|--------|--------|------------|
| Boil    | Columbus/Tomahawk/Zeus | 10 g   | 20 min | 15.5 %     |

### Yeasts

| Name                             | Type | Form | Amount | Laboratory |
|----------------------------------|------|------|--------|------------|
| Lallemand - WildBrew Philly Sour | Ale  | Dry  | 11 g   | Lallemand  |