

## test

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- Gravity **12.6 BLG**
- ABV **5.1 %**
- IBU **44**
- SRM **8.9**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **2 %**
- Size with trub loss **23.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **5 %/h**
- Boil size **26.4 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.2 liter(s) / kg**
- Mash size **17.6 liter(s)**
- Total mash volume **23.1 liter(s)**

### Steps

- Temp **68 C**, Time **60 min**
- Temp **78 C**, Time **5 min**

### Mash step by step

- Heat up **17.6 liter(s)** of strike water to **75.5C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **5 min** at **78C**
- Sparge using **14.3 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

### Fermentables

| Type  | Name                   | Amount        | Yield | EBC |
|-------|------------------------|---------------|-------|-----|
| Grain | Viking Pale Ale malt   | 5 kg (90.9%)  | 80 %  | 5   |
| Grain | Strzegom Karmel<br>150 | 0.5 kg (9.1%) | 75 %  | 150 |

### Hops

| Use for             | Name       | Amount | Time   | Alpha acid |
|---------------------|------------|--------|--------|------------|
| Boil                | Centennial | 15 g   | 60 min | 10.5 %     |
| Boil                | Centennial | 35 g   | 30 min | 10.5 %     |
| Aroma (end of boil) | Centennial | 40 g   | 0 min  | 10.5 %     |

### Yeasts

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

### Extras

| Type        | Name      | Amount | Use for | Time   |
|-------------|-----------|--------|---------|--------|
| Fining      | Whirlfloc | 1.2 g  | Boil    | 5 min  |
| Water Agent | gips      | 7 g    | Mash    | 60 min |