

## PALE ALE 12\*

- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **43**
- SRM **4.9**
- Style **Extra Special/Strong Bitter (English Pale Ale)**

### Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **32.2 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **2.7 liter(s) / kg**
- Mash size **16.2 liter(s)**
- Total mash volume **22.2 liter(s)**

### Steps

- Temp **68 C**, Time **70 min**
- Temp **78 C**, Time **10 min**

### Mash step by step

- Heat up **16.2 liter(s)** of strike water to **76.9C**
- Add grains
- Keep mash **70 min** at **68C**
- Keep mash **10 min** at **78C**
- Sparge using **22 liter(s)** of **76C** water or to achieve **32.2 liter(s)** of wort

### Fermentables

| Type  | Name                   | Amount          | Yield  | EBC |
|-------|------------------------|-----------------|--------|-----|
| Grain | Viking Pale Ale malt   | 4 kg (66.7%)    | 80 %   | 5   |
| Grain | Monachijski            | 0.75 kg (12.5%) | 80 %   | 16  |
| Grain | Karmelowy Jasny 30EBC  | 0.25 kg (4.2%)  | 75 %   | 30  |
| Grain | BESTMALZ - Best Pilsen | 1 kg (16.7%)    | 80.5 % | 4   |

### Hops

| Use for             | Name     | Amount | Time   | Alpha acid |
|---------------------|----------|--------|--------|------------|
| Boil                | Phoenix  | 35 g   | 70 min | 11 %       |
| Aroma (end of boil) | Progress | 50 g   | 10 min | 5.5 %      |

### Yeasts

| Name         | Type | Form | Amount | Laboratory |
|--------------|------|------|--------|------------|
| Safale US-05 | Ale  | Dry  | 23 g   | ---        |

### Extras

| Type   | Name        | Amount | Use for | Time   |
|--------|-------------|--------|---------|--------|
| Fining | whirlfloc T | 1.25 g | Boil    | 10 min |