

Pale Ale wg. TB

- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **59**
- SRM **4.9**
- Style **Extra Special/Strong Bitter (English Pale Ale)**

Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **5 %**
- Size with trub loss **15.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **19.8 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **12 liter(s)**
- Total mash volume **16 liter(s)**

Steps

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

Mash step by step

- Heat up **12 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **70 min** at **68C**
- Keep mash **10 min** at **78C**
- Sparge using **11.8 liter(s)** of **76C** water or to achieve **19.8 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------------|--------------|-------|-----|
| Grain | Viking Pale Ale malt | 3.2 kg (80%) | 80 % | 5 |
| Grain | Strzegom Monachijski typ I | 0.6 kg (15%) | 79 % | 16 |
| Grain | Bestmalz Carmel Pils | 0.2 kg (5%) | 75 % | 5 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|----------|--------|--------|------------|
| Boil | Phoenix | 30 g | 60 min | 11 % |
| Boil | Progress | 40 g | 10 min | 5.5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------------|------|-------|--------|------------|
| Safale US-05 | Ale | Slant | 200 ml | --- |