

#8 PALE ALE

- Gravity **11.4 BLG**
- ABV **4.6 %**
- IBU **35**
- SRM **3.7**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **4 %**
- Size with trub loss **20.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.1 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.3 liter(s) / kg**
- Mash size **14.8 liter(s)**
- Total mash volume **19.4 liter(s)**

Steps

- Temp **53 C**, Time **20 min**
- Temp **65 C**, Time **40 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **14.8 liter(s)** of strike water to **58C**
- Add grains
- Keep mash **20 min** at **53C**
- Keep mash **40 min** at **65C**
- Keep mash **10 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **14.8 liter(s)** of **76C** water or to achieve **25.1 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------|----------------|-------|-----|
| Grain | Strzegom Pilzneński | 2 kg (44.4%) | 80 % | 4 |
| Grain | Viking Pale Ale malt | 2.5 kg (55.6%) | 80 % | 5 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|-------------------|--------|--------|------------|
| Boil | Magnum | 10 g | 50 min | 13.5 % |
| Boil | Mandarina Bavaria | 20 g | 25 min | 10 % |
| Boil | Mandarina Bavaria | 20 g | 5 min | 10 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------|------|------|--------|------------|
| US-05 | Ale | Dry | 11.5 g | Gęstwa |