

Pale ALE USA

- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **36**
- SRM **8.3**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **24 liter(s)**
- Trub loss **5 %**
- Size with trub loss **25.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **30.4 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18.8 liter(s)**
- Total mash volume **25 liter(s)**

Steps

- Temp **68 C**, Time **60 min**
- Temp **78 C**, Time **15 min**

Mash step by step

- Heat up **18.8 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **15 min** at **78C**
- Sparge using **17.9 liter(s)** of **76C** water or to achieve **30.4 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------|--------------|-------|-----|
| Grain | Strzegom Pilzniejszy | 4.5 kg (72%) | 80 % | 4 |
| Grain | Pszenica niesłodowana | 1 kg (16%) | 75 % | 3 |
| Grain | Viking Wędzony torfem | 0.5 kg (8%) | 81 % | 7 |
| Grain | Strzegom Karmel 300 | 0.25 kg (4%) | 70 % | 299 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|------------|--------|--------|------------|
| Boil | Belma | 30 g | 60 min | 9.4 % |
| Aroma (end of boil) | Belma | 30 g | 10 min | 9.4 % |
| Aroma (end of boil) | Willamette | 15 g | 5 min | 5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------------|------|-------|--------|------------|
| Safale US-05 | Ale | Slant | 500 ml | --- |