

# Letnie Pale Ale

- Gravity **13.3 BLG**
- ABV **5.5 %**
- IBU **39**
- SRM **4.8**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **0 %**
- Size with trub loss **15 liter(s)**
- Boil time **30 min**
- Evaporation rate **20 %/h**
- Boil size **16.5 liter(s)**

## Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **15.6 liter(s)**
- Total mash volume **19.5 liter(s)**

## Steps

- Temp **66 C**, Time **90 min**

## Mash step by step

- Heat up **15.6 liter(s)** of strike water to **71.8C**
- Add grains
- Keep mash **90 min** at **66C**
- Sparge using **4.8 liter(s)** of **76C** water or to achieve **16.5 liter(s)** of wort

## Fermentables

| Type  | Name                     | Amount         | Yield | EBC |
|-------|--------------------------|----------------|-------|-----|
| Grain | Viking Pale Ale malt     | 3 kg (76.9%)   | 80 %  | 5   |
| Grain | Płatki pszeniczne        | 0.4 kg (10.3%) | 60 %  | 3   |
| Grain | Płatki orkiszowe         | 0.4 kg (10.3%) | 60 %  | 4   |
| Grain | Karmelowy Jasny<br>30EBC | 0.1 kg (2.6%)  | 75 %  | 30  |

## Hops

| Use for | Name                 | Amount | Time   | Alpha acid |
|---------|----------------------|--------|--------|------------|
| Boil    | Mosaic               | 5 g    | 30 min | 12.3 %     |
| Boil    | Citra                | 10 g   | 15 min | 13.9 %     |
| Boil    | Mosaic               | 5 g    | 15 min | 12.3 %     |
| Boil    | Mosaic               | 15 g   | 5 min  | 12.3 %     |
| Boil    | Citra                | 15 g   | 5 min  | 13.9 %     |
| Boil    | Hallertau Mittelfruh | 10 g   | 15 min | 3 %        |