

# Letnie Pale Ale

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- 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 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 %