

# PALEALE

- Gravity **14 BLG**
- ABV **5.8 %**
- IBU **48**
- SRM **4.7**

## Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.5 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **21 liter(s)**
- Total mash volume **27 liter(s)**

## Steps

- Temp **52 C**, Time **20 min**
- Temp **65 C**, Time **50 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **25 min**

## Mash step by step

- Heat up **21 liter(s)** of strike water to **56.6C**
- Add grains
- Keep mash **20 min** at **52C**
- Keep mash **50 min** at **65C**
- Keep mash **30 min** at **72C**
- Keep mash **25 min** at **78C**
- Sparge using **11.5 liter(s)** of **76C** water or to achieve **26.5 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	4 kg (66.7%)	80 %	5
Grain	Żytni	1 kg (16.7%)	85 %	8
Grain	Płatki owsiane	0.5 kg (8.3%)	60 %	3
Grain	Weyermann - Acidulated Malt	0.5 kg (8.3%)	80 %	6

## Hops

Use for	Name	Amount	Time	Alpha acid
Mash	domowy 2022	50 g	60 min	3 %
Aroma (end of boil)	domowy 2022/2023	50 g	15 min	3 %
Boil	domowy 2022/2023	100 g	60 min	3 %
Aroma (end of boil)	domowy 2022/2023	50 g	30 min	3 %

## Yeasts

Name	Type	Form	Amount	Laboratory
us 05	Ale	Dry	11 g	---