

# paleale

- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **50**
- SRM **4.3**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **29 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.2 liter(s) / kg**
- Mash size **19.2 liter(s)**
- Total mash volume **25.2 liter(s)**

## Steps

- Temp **67 C**, Time **50 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **19.2 liter(s)** of strike water to **74.3C**
- Add grains
- Keep mash **50 min** at **67C**
- Keep mash **10 min** at **78C**
- Sparge using **15.8 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	5 kg (83.3%)	79 %	5
Grain	Strzegom Pszeniczny	1 kg (16.7%)	81 %	6

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Citra	20 g	60 min	13 %
Boil	Citra	10 g	30 min	13 %
Boil	Zula	10 g	30 min	7 %
Aroma (end of boil)	Zula	20 g	10 min	7 %
Aroma (end of boil)	Citra	10 g	10 min	13 %
Whirlpool	Zula	10 g	5 min	7 %
Whirlpool	Citra	10 g	5 min	13 %

## Yeasts

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