

# Pale Ale 12°

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- Gravity **10 BLG**
- ABV **4 %**
- IBU **69**
- SRM **4.7**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.75 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **19 liter(s)**

## Steps

- Temp **68 C**, Time **70 min**
- Temp **78 C**, Time **10 min**
- Temp **20 C**, Time **80 min**

## Mash step by step

- Heat up **15 liter(s)** of strike water to **20C**
- Add grains
- Keep mash **80 min** at **20C**
- Keep mash **70 min** at **68C**
- Keep mash **10 min** at **78C**
- Sparge using **14.3 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	3.2 kg (80%)	79 %	6
Grain	Strzegom Monachijski typ I	0.6 kg (15%)	79 %	16
Grain	Caramel/Crystal Malt - 10L	0.2 kg (5%)	75 %	20

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Phoenix	30 g	60 min	11 %
Aroma (end of boil)	Progress	40 g	10 min	5.5 %
Whirlpool	Mosaic	30 g	200 min	10 %

## Yeasts

Name	Type	Form	Amount	Laboratory
US-05	Ale	Dry	9.5 g	Fermentis