

# Pale Ale 20L

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- Gravity **11.4 BLG**
- ABV ---
- IBU **37**
- SRM **8.9**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **10 %**
- Size with trub loss **27.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **20 %/h**
- Boil size **35.9 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **18.2 liter(s)**
- Total mash volume **23.4 liter(s)**

## Steps

- Temp **65 C**, Time **60 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **18.2 liter(s)** of strike water to **71.4C**
- Add grains
- Keep mash **60 min** at **65C**
- Keep mash **30 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **22.9 liter(s)** of **76C** water or to achieve **35.9 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	3 kg (57.7%)	79 %	6
Grain	Strzegom Wiedeński	2 kg (38.5%)	79 %	10
Grain	Weyermann - Caramel Rye Malt	0.2 kg (3.8%)	74 %	175

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Citra	10 g	60 min	13.5 %
Boil	Citra	15 g	25 min	13.5 %
Boil	Citra	15 g	10 min	13.5 %
Boil	Citra	15 g	5 min	13.5 %
Whirlpool	Citra	15 g	0 min	12 %
Dry Hop	Amarillo	30 g	4 day(s)	9.5 %
Dry Hop	Citra	40 g	4 day(s)	12 %
Whirlpool	Amarillo	10 g	0 min	9.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
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Safale US-05	Ale	Dry	11 g	Fermentis
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