

# Pale Ale 20L

- Gravity **12.8 BLG**
- ABV ---
- IBU **45**
- SRM **7.4**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **10 %**
- Size with trub loss **24.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **20 %/h**
- Boil size **33 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **17.8 liter(s)**
- Total mash volume **22.9 liter(s)**

## Steps

- Temp **63 C**, Time **60 min**

## Mash step by step

- Heat up **17.8 liter(s)** of strike water to **69.2C**
- Add grains
- Keep mash **60 min** at **63C**
- Sparge using **20.3 liter(s)** of **76C** water or to achieve **33 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	3 kg (58.8%)	79 %	6
Grain	Strzegom Wiedeński	1 kg (19.6%)	79 %	10
Grain	Strzegom pszeniczny	1 kg (19.6%)	81 %	6
Grain	Strzegom Karmel 150	0.1 kg (2%)	75 %	150

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Citra	10 g	60 min	13.5 %
Aroma (end of boil)	Citra	10 g	25 min	13.5 %
Aroma (end of boil)	Citra	15 g	5 min	13.5 %
Whirlpool	Citra	10 g	0 min	13.5 %
Dry Hop	Citra	40 g	3 day(s)	12 %
Boil	Simcoe	10 g	25 min	13 %
Boil	Simcoe	10 g	15 min	13 %
Boil	Amarillo	10 g	5 min	9.5 %
Whirlpool	Amarillo	10 g	0 min	9.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
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Safale US-05	Ale	Slant	300 ml	Fermentis
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