

# ciasteczkowe

- Gravity **13.8 BLG**
- ABV **5.7 %**
- IBU **38**
- SRM **8.5**
- Style **American Pale Ale**

## 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 **15 %/h**
- Boil size **27.7 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **17.7 liter(s)**
- Total mash volume **23.6 liter(s)**

## Steps

- Temp **71 C**, Time **60 min**

## Mash step by step

- Heat up **17.7 liter(s)** of strike water to **79.5C**
- Add grains
- Keep mash **60 min** at **71C**
- Sparge using **15.9 liter(s)** of **76C** water or to achieve **27.7 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	4 kg (67.8%)	79 %	6
Grain	strzegom cookie	1 kg (16.9%)	72 %	60
Grain	Strzegom pszeniczny	0.5 kg (8.5%)	81 %	6
Grain	Płatki owsiane	0.4 kg (6.8%)	85 %	3

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	20 g	40 min	15.5 %
Boil	El Dorado	20 g	5 min	15 %
Boil	Chinook	20 g	5 min	13 %
Dry Hop	El Dorado	30 g	5 day(s)	15 %
Dry Hop	Chinook	30 g	5 day(s)	13 %

## Yeasts

Name	Type	Form	Amount	Laboratory
FM52 Amerykański Sen	Ale	Liquid	600 ml	Fermentum Mobile