

# 1,2,3

- Gravity **14.5 BLG**
- ABV **6 %**
- IBU **30**
- SRM **3.3**
- 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 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **20 liter(s)**

## Steps

- Temp **68 C**, Time **60 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **15 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **10 min** at **78C**
- Sparge using **15.3 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	słód maris otter low colour	5 kg (90.9%)	81 %	3
Adjunct	Płatki owsiane	0.25 kg (4.5%)	85 %	3
Adjunct	płatki jęczmienne	0.25 kg (4.5%)	--- %	---

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Citra	30 g	35 min	12 %
Aroma (end of boil)	Citra	20 g	0 min	12 %

## Yeasts

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