

# pomarańczowe ale

- Gravity **11.2 BLG**
- ABV ---
- IBU **61**
- SRM **10.1**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.8 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **12.7 liter(s)**
- Total mash volume **16.9 liter(s)**

## Steps

- Temp **64 C**, Time **40 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **12.7 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **40 min** at **64C**
- Keep mash **20 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **19.3 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	3.5 kg (82.9%)	79 %	12
Grain	crystal 150	0.2 kg (4.7%)	--- %	150
Grain	Pszeniczny	0.3 kg (7.1%)	85 %	4
Grain	Płatki owsiane	0.22 kg (5.2%)	85 %	3

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	10 g	45 min	10 %
Boil	Perle	10 g	45 min	7 %
Boil	eureka	30 g	15 min	18 %
Boil	eureka	30 g	5 min	18 %

## Yeasts

Name	Type	Form	Amount	Laboratory
belgian wit m21 mangrove jack's	Ale	Dry	10 g	---

## Extras

Type	Name	Amount	Use for	Time
Spice	kolendra	5 g	Boil	15 min
Flavor	skórki pomarańczy	10 g	Boil	15 min
Flavor	skórki cytryny	10 g	Boil	5 min
Flavor	skórki pomarańczy	10 g	Boil	5 min