

# Pan i Pani

- Gravity **16.1 BLG**
- ABV **6.8 %**
- IBU **48**
- SRM **4.6**
- Style **White IPA**

## 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 **2.75 liter(s) / kg**
- Mash size **14 liter(s)**
- Total mash volume **19.1 liter(s)**

## Steps

- Temp **65 C**, Time **60 min**
- Temp **75 C**, Time **10 min**

## Mash step by step

- Heat up **14 liter(s)** of strike water to **73.2C**
- Add grains
- Keep mash **60 min** at **65C**
- Keep mash **10 min** at **75C**
- Sparge using **16.4 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pale Wiking Malt	3 kg (45.5%)	79 %	6
Adjunct	Pszenica niesłodowana	1.5 kg (22.7%)	75 %	3
Grain	Płatki pszeniczne	1 kg (15.2%)	60 %	3
Grain	Płatki owsiane	1 kg (15.2%)	60 %	3
Grain	Łuska ryżowa	0.1 kg (1.5%)	1 %	1

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Perle	40 g	60 min	7 %
Boil	El Dorado	20 g	10 min	15 %
Whirlpool	Citra	50 g	10 min	12 %
Dry Hop	Citra	50 g	4 day(s)	12 %
Dry Hop	Amarillo	50 g	4 day(s)	9.5 %
Dry Hop	El Dorado	30 g	4 day(s)	15 %

## Yeasts

Name	Type	Form	Amount	Laboratory
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FM11 Wichrowe Wzgórza	Ale	Liquid	700 ml	Fermentum Mobile
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### Extras

Type	Name	Amount	Use for	Time
Flavor	suszona skóra z pomarańczy	20 g	Boil	5 min
Spice	kolendra	5 g	Boil	5 min