

## WARKA #5

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- Gravity **15.9 BLG**
- ABV **6.7 %**
- IBU **76**
- SRM **5.5**
- Style **American IPA**

### Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **5 %**
- Size with trub loss **12.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **15.2 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **12.6 liter(s)**
- Total mash volume **16.2 liter(s)**

### Steps

- Temp **74 C**, Time **20 min**
- Temp **64 C**, Time **60 min**
- Temp **78 C**, Time **0 min**

### Mash step by step

- Heat up **12.6 liter(s)** of strike water to **70.3C**
- Add grains
- Keep mash **60 min** at **64C**
- Keep mash **20 min** at **74C**
- Keep mash **0 min** at **78C**
- Sparge using **6.2 liter(s)** of **76C** water or to achieve **15.2 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Briess - Pale Ale Malt	1.7 kg (47.2%)	80 %	7
Grain	Słód Pilsner® 2,5-4,5 EBC Weyermann	1.7 kg (47.2%)	80 %	7
Grain	Płatki owsiane	0.2 kg (5.6%)	85 %	3

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Lomik	20 g	60 min	4.6 %
Boil	Sybilla	20 g	60 min	6 %
Boil	Tradition	20 g	60 min	5.2 %
Boil	Lomik	20 g	15 min	4.6 %
Boil	Sybilla	20 g	15 min	6 %
Boil	Tradition	20 g	15 min	5.2 %

### Yeasts

Name	Type	Form	Amount	Laboratory
wb	Wheat	Dry	11.5 g	---

## Extras

Type	Name	Amount	Use for	Time
Flavor	skórka z pomarańczy	12 g	Boil	5 min
Spice	curacao	12 g	Boil	5 min
Spice	kmin rzymski	1 g	Boil	5 min
Spice	kolendra	3 g	Boil	5 min