

# Towarzysz Szmaciak

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- Gravity **14.7 BLG**
- ABV ---
- IBU **52**
- SRM **5.1**
- Style **American IPA**

## Batch size

- Expected quantity of finished beer **24 liter(s)**
- Trub loss **10 %**
- Size with trub loss **26.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **30.4 liter(s)**

## Mash information

- Mash efficiency **91 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **19.6 liter(s)**
- Total mash volume **25.2 liter(s)**

## Steps

- Temp **65 C**, Time **60 min**
- Temp **78 C**, Time **15 min**

## Mash step by step

- Heat up **19.6 liter(s)** of strike water to **71.4C**
- Add grains
- Keep mash **60 min** at **65C**
- Keep mash **15 min** at **78C**
- Sparge using **16.4 liter(s)** of **76C** water or to achieve **30.4 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Grodziski	2.8 kg (50%)	80 %	4
Grain	Briess - Pale Ale Malt	2.8 kg (50%)	80 %	7

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Citra	100 g	15 min	12 %

## Yeasts

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

## Extras

Type	Name	Amount	Use for	Time
Other	Burak ćwikłowy	5000 g	Boil	0 min