

# Wolność Tomku w swoim domku vol.1

- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **29**
- SRM **5.3**
- Style **American IPA**

## 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 **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.2 liter(s)**
- Total mash volume **21.6 liter(s)**

## Steps

- Temp **67 C**, Time **60 min**
- Temp **72 C**, Time **45 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **16.2 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **45 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **17 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	4 kg (74.1%)	80 %	5
Grain	Płatki owsiane	0.5 kg (9.3%)	60 %	3
Grain	Amber Malt	0.15 kg (2.8%)	75 %	43
Grain	Strzegom Monachijski typ I	0.5 kg (9.3%)	79 %	16
Grain	Strzegom Karmel 30	0.25 kg (4.6%)	75 %	30

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Fuggles	15 g	60 min	4.5 %
Boil	Magnum	40 g	10 min	13.5 %
Aroma (end of boil)	Cascade	25 g	1 min	6 %
Aroma (end of boil)	Pacifica (NZ)	30 g	1 min	4.8 %
Aroma (end of boil)	Amarillo	25 g	1 min	9.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11.5 g	---

## Extras

Type	Name	Amount	Use for	Time
Fining	mech irlandzki	10 g	Boil	15 min
Flavor	Cytryna skórki	20 g	Boil	10 min