

# Trzynastka dla każdego (z miską ryżu)- Polish Pale Ale

- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **30**
- SRM **4.7**

## 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 **3 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **20 liter(s)**

## Steps

- Temp **63 C**, Time **15 min**
- Temp **67 C**, Time **15 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **0 min**

## Mash step by step

- Heat up **15 liter(s)** of strike water to **70.2C**
- Add grains
- Keep mash **15 min** at **63C**
- Keep mash **15 min** at **67C**
- Keep mash **30 min** at **72C**
- Keep mash **0 min** at **78C**
- Sparge using **15.3 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pale Ale Malt	4 kg (80%)	85 %	7
Grain	Weyermann - Pale Wheat Malt	0.5 kg (10%)	85 %	5
Grain	Rice, Flaked	0.5 kg (10%)	70 %	2

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	15 g	50 min	11 %
Aroma (end of boil)	Lublin (Lubelski)	50 g	15 min	4 %
Whirlpool	Lublin (Lubelski)	50 g	60 min	1 %
77 - 71°C				

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11.5 g	Fermentis
15°C 7+7				