

# Hefe bez słodowanej pszenicy

- Gravity **11.4 BLG**
- ABV **4.6 %**
- IBU **11**
- SRM **3.5**
- Style **Weizen/Weissbier**

## Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **18 %/h**
- Boil size **32.5 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.2 liter(s)**
- Total mash volume **21.6 liter(s)**

## Steps

- Temp **44 C**, Time **80 min**
- Temp **55 C**, Time **10 min**
- Temp **65 C**, Time **40 min**
- Temp **72 C**, Time **20 min**

## Mash step by step

- Heat up **16.2 liter(s)** of strike water to **48C**
- Add grains
- Keep mash **80 min** at **44C**
- Keep mash **10 min** at **55C**
- Keep mash **40 min** at **65C**
- Keep mash **20 min** at **72C**
- Sparge using **21.7 liter(s)** of **76C** water or to achieve **32.5 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	4 kg (74.1%)	81 %	4
Grain	Płatki orkiszowe	1 kg (18.5%)	60 %	4
Grain	Rye, Flaked	0.4 kg (7.4%)	60 %	6

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Hallertau mittelfruh	25 g	60 min	4.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
FM41 Gwoździe i Banany	Wheat	Slant	100 ml	Fermentum Mobile

## Extras

Type	Name	Amount	Use for	Time
Other	Łuska ryżowa sterylizowana	150 g	Mash	5 min