

# Hefe

- Gravity **10.2 BLG**
- ABV **4.1 %**
- IBU **15**
- SRM **3.3**

## Batch size

- Expected quantity of finished beer **40 liter(s)**
- Trub loss **5 %**
- Size with trub loss **44 liter(s)**
- Boil time **70 min**
- Evaporation rate **13 %/h**
- Boil size **55.3 liter(s)**

## Mash information

- Mash efficiency **84 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **25.9 liter(s)**
- Total mash volume **33.3 liter(s)**

## Steps

- Temp **45 C**, Time **10 min**
- Temp **50 C**, Time **15 min**
- Temp **63 C**, Time **30 min**
- Temp **73 C**, Time **40 min**

## Mash step by step

- Heat up **25.9 liter(s)** of strike water to **48.6C**
- Add grains
- Keep mash **10 min** at **45C**
- Keep mash **15 min** at **50C**
- Keep mash **30 min** at **63C**
- Keep mash **40 min** at **73C**
- Sparge using **36.8 liter(s)** of **76C** water or to achieve **55.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pszeniczny	4 kg (54.1%)	85 %	4
Grain	Carahell	0.4 kg (5.4%)	77 %	26
Grain	Strzegom Pilzneński	3 kg (40.5%)	80 %	4

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Lublin (Lubelski)	50 g	60 min	4 %
Boil	Lublin (Lubelski)	30 g	10 min	4 %
Aroma (end of boil)	Lublin (Lubelski)	20 g	5 min	4 %

## Yeasts

Name	Type	Form	Amount	Laboratory
FM41 Gwoździe i Banany	Ale	Liquid	300 ml	Fermentum Mobile