

# Zula Pale Ale

- Gravity **11.2 BLG**
- ABV **4.5 %**
- IBU **12**
- SRM **4.3**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **25.7 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **15.4 liter(s)**
- Total mash volume **19.8 liter(s)**

## Steps

- Temp **68 C**, Time **30 min**
- Temp **73 C**, Time **30 min**
- Temp **79 C**, Time **1 min**

## Mash step by step

- Heat up **15.4 liter(s)** of strike water to **74.9C**
- Add grains
- Keep mash **30 min** at **68C**
- Keep mash **30 min** at **73C**
- Keep mash **1 min** at **79C**
- Sparge using **14.7 liter(s)** of **76C** water or to achieve **25.7 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	4 kg (90.9%)	81 %	4
Grain	Karmelowy Jasny 30EBC	0.4 kg (9.1%)	75 %	30

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Zula	25 g	20 min	7 %

## Yeasts

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