

# Zula Pale Ale

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- 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<br>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  |