

Zula

- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **32**
- SRM **4.2**
- Style **German Pilsner (Pils)**

Batch size

- Expected quantity of finished beer **32 liter(s)**
- Trub loss **5 %**
- Size with trub loss **33.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **40.5 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **22.5 liter(s)**
- Total mash volume **30 liter(s)**

Steps

- Temp **63 C**, Time **20 min**
- Temp **72 C**, Time **40 min**
- Temp **78 C**, Time **1 min**

Mash step by step

- Heat up **22.5 liter(s)** of strike water to **70.2C**
- Add grains
- Keep mash **20 min** at **63C**
- Keep mash **40 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **25.5 liter(s)** of **76C** water or to achieve **40.5 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Castle Malting - Pilsneński 6-rzędowy	6.5 kg (86.7%)	80 %	5
Grain	Strzegom Monachijski typ I	0.5 kg (6.7%)	79 %	16
Grain	castle malting wheat blanc	0.5 kg (6.7%)	85 %	4

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Zula	25 g	60 min	8.3 %
Boil	Zula	50 g	20 min	8.3 %

Yeasts

Name	Type	Form	Amount	Laboratory
fm 31	Lager	Slant	200 ml	---