

shma

- Gravity **15 BLG**
- ABV ---
- IBU **47**
- SRM **5.9**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **17 liter(s)**
- Trub loss **5 %**
- Size with trub loss **17.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **21.6 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **14 liter(s)**
- Total mash volume **18.6 liter(s)**

Steps

- Temp **53 C**, Time **10 min**
- Temp **65 C**, Time **30 min**
- Temp **72 C**, Time **25 min**

Mash step by step

- Heat up **14 liter(s)** of strike water to **58.5C**
- Add grains
- Keep mash **10 min** at **53C**
- Keep mash **30 min** at **65C**
- Keep mash **25 min** at **72C**
- Sparge using **12.3 liter(s)** of **76C** water or to achieve **21.6 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	4.2 kg (90.3%)	81 %	4
Grain	Carabelge	0.3 kg (6.5%)	80 %	30
Grain	Pszeniczny	0.15 kg (3.2%)	85 %	4

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Mosaic	15 g	60 min	10 %
Boil	Mosaic	12 g	30 min	10 %
Boil	Mosaic	25 g	15 min	10 %
Boil	Mosaic	37 g	0 min	10 %

Yeasts

Name	Type	Form	Amount	Laboratory
05	Ale	Dry	11 g	---