

# warka 19 duza

- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **16**
- SRM **4.3**
- Style **Bohemian Pilsener**

## Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **29 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **17.4 liter(s)**
- Total mash volume **23.2 liter(s)**

## Steps

- Temp **62 C**, Time **30 min**
- Temp **72 C**, Time **40 min**

## Mash step by step

- Heat up **17.4 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **30 min** at **62C**
- Keep mash **40 min** at **72C**
- Sparge using **17.4 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	hook head pilsner	4.5 kg (77.6%)	80.5 %	3.5
Grain	BESTMALZ - Best Minich	0.6 kg (10.3%)	80.5 %	15
Grain	BESTMALZ - Bestt Pale Ale	0.2 kg (3.4%)	80.5 %	6
Grain	Oats, Flaked	0.25 kg (4.3%)	80 %	2
Grain	Wheat Malt, Dark	0.25 kg (4.3%)	84 %	18

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Saaz (USA)	40 g	50 min	3 %
Boil	Liberty	20 g	15 min	4.5 %
Boil	Liberty	10 g	5 min	4.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Slant	100 ml	Fermentis