

# bawarka

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **25**
- SRM **6.8**
- Style **Oktoberfest/Märzen**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **10 %**
- Size with trub loss **23 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **27.9 liter(s)**

## Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **14.1 liter(s)**
- Total mash volume **18.8 liter(s)**

## Steps

- Temp **64 C**, Time **45 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **14.1 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **45 min** at **64C**
- Keep mash **15 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **18.5 liter(s)** of **76C** water or to achieve **27.9 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Wiedeński	2 kg (42.6%)	79 %	10
Grain	Monachijski	2.5 kg (53.2%)	80 %	16
Grain	Karmelowy Jasny 30EBC	0.2 kg (4.3%)	75 %	30

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	15 g	55 min	11 %
Boil	Magnum (goryczkowy) DF	10 g	15 min	11 %
Boil	Hersbrucker	20 g	10 min	4.3 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	11.5 g	Safale