

# Bitter

- Gravity **10 BLG**
- ABV **4 %**
- IBU **30**
- SRM **8.4**
- Style **Standard/Ordinary Bitter**

## Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **75 min**
- Evaporation rate **10 %/h**
- Boil size **32.4 liter(s)**

## Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **15.4 liter(s)**
- Total mash volume **19.8 liter(s)**

## Steps

- Temp **55 C**, Time **3 min**
- Temp **60 C**, Time **66 min**
- Temp **76 C**, Time **5 min**

## Mash step by step

- Heat up **15.4 liter(s)** of strike water to **60C**
- Add grains
- Keep mash **3 min** at **55C**
- Keep mash **66 min** at **60C**
- Keep mash **5 min** at **76C**
- Sparge using **21.4 liter(s)** of **76C** water or to achieve **32.4 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Monachijski typ I	2 kg (45.5%)	79 %	16
Grain	Strzegom Wiedeński	1 kg (22.7%)	79 %	10
Grain	Weyermann - Bohemian Pilsner Malt	1 kg (22.7%)	81 %	4
Grain	Strzegom Czekoladowy jasny	0.15 kg (3.4%)	68 %	400
Grain	Weyermann - Carapils	0.25 kg (5.7%)	78 %	4

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Admiral	18 g	60 min	15.1 %
Boil	Fuggles	50 g	5 min	4.2 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11 g	Fermentis