

# SCHWARZBIER III

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- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **36**
- SRM **28.1**
- Style **Schwarzbier**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15.6 liter(s)**
- Total mash volume **20.8 liter(s)**

## Steps

- Temp **52 C**, Time **10 min**
- Temp **63 C**, Time **55 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **3 min**

## Mash step by step

- Heat up **15.6 liter(s)** of strike water to **57.3C**
- Add grains
- Keep mash **10 min** at **52C**
- Keep mash **55 min** at **63C**
- Keep mash **30 min** at **72C**
- Keep mash **3 min** at **78C**
- Sparge using **14.9 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	3 kg (57.7%)	80 %	4
Grain	Strzegom Monachijski typ II	1.15 kg (22.1%)	79 %	22
Grain	Karmelowy Jasny 30EBC	0.15 kg (2.9%)	75 %	30
Grain	Strzegom Karmel 600	0.2 kg (3.8%)	68 %	601
Grain	Strzegom Czekoladowy ciemny	0.3 kg (5.8%)	68 %	1200
Grain	Płatki owsiane	0.4 kg (7.7%)	85 %	3

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnat	15 g	60 min	13.2 %
Boil	Tradition	25 g	30 min	5.5 %
Boil	Tradition	25 g	5 min	5.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Saflager W 34/70	Lager	Dry	22 g	Fermentis

### Extras

Type	Name	Amount	Use for	Time
Fining	whirlflock	5 g	Boil	15 min
Flavor	cukier kandyzowany ciemny	100 g	Boil	10 min