

Czeskie czarne

- Gravity **11.7 BLG**
- ABV **4.7 %**
- IBU **24**
- SRM **25.1**
- Style **Schwarzbier**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **10 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.4 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **2.8 liter(s) / kg**
- Mash size **14 liter(s)**
- Total mash volume **19 liter(s)**

Steps

- Temp **68 C**, Time **90 min**

Mash step by step

- Heat up **14 liter(s)** of strike water to **76.6C**
- Add grains
- Keep mash **90 min** at **68C**
- Sparge using **17.4 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Monachijski typ II	2 kg (40%)	79 %	22
Grain	Strzegom Wiedeński	2 kg (40%)	79 %	10
Grain	Strzegom Czekoladowy jasny	1 kg (20%)	68 %	400

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	15 g	60 min	13.5 %
Boil	Kazbek	15 g	5 min	4.6 %

Yeasts

Name	Type	Form	Amount	Laboratory
Saflager W 34/70	Lager	Dry	11.5 g	Fermentis