

# Czarny

- Gravity **15.9 BLG**
- ABV **6.7 %**
- IBU **58**
- SRM **72.7**
- Style **Foreign Extra Stout**

## Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **5 %**
- Size with trub loss **12.6 liter(s)**
- Boil time **50 min**
- Evaporation rate **12 %/h**
- Boil size **15.2 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **12 liter(s)**
- Total mash volume **16 liter(s)**

## Steps

- Temp **67 C**, Time **60 min**

## Mash step by step

- Heat up **12 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Sparge using **7.2 liter(s)** of **76C** water or to achieve **15.2 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Maris Otter Crisp	1 kg (25%)	83 %	12
Grain	Golden Ale Strzegom	1 kg (25%)	--- %	14
Grain	Castlemalting Kawowy	0.5 kg (12.5%)	--- %	250
Grain	Strzegom pszenica prażona	0.5 kg (12.5%)	70 %	1000
Grain	Strzegom Czekoladowy jasny	0.5 kg (12.5%)	68 %	400
Grain	Weyermann - Carafa II	0.5 kg (12.5%)	70 %	837

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	10 g	45 min	8.8 %
Boil	Sovereign	50 g	45 min	6.1 %

## Yeasts

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