

# Mała Czarna

- Gravity **25.7 BLG**
- ABV **12.1 %**
- IBU **92**
- SRM **81.7**
- Style **Russian Imperial Stout**

## Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **300 min**
- Evaporation rate **11 %/h**
- Boil size **44.6 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **2.5 liter(s) / kg**
- Mash size **33.4 liter(s)**
- Total mash volume **46.8 liter(s)**

## Steps

- Temp **45 C**, Time **15 min**
- Temp **62 C**, Time **50 min**
- Temp **72 C**, Time **25 min**

## Mash step by step

- Heat up **33.4 liter(s)** of strike water to **50C**
- Add grains
- Keep mash **15 min** at **45C**
- Keep mash **50 min** at **62C**
- Keep mash **25 min** at **72C**
- Sparge using **24.6 liter(s)** of **76C** water or to achieve **44.6 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	6 kg (44.9%)	79 %	6
Grain	Strzegom Monachijski typ II	3 kg (22.5%)	79 %	22
Grain	Strzegom Karmel 600	1 kg (7.5%)	68 %	601
Grain	Strzegom Karmel 150	0.7 kg (5.2%)	75 %	150
Grain	Strzegom Czekoladowy ciemny	0.7 kg (5.2%)	68 %	1200
Grain	Oats, Flaked	0.46 kg (3.4%)	80 %	2
Grain	Weyermann - Pszeniczny Czekoladowy	0.5 kg (3.7%)	73 %	1001
Grain	Jęczmień palony	1 kg (7.5%)	55 %	985

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Warrior	30 g	60 min	15.5 %
Boil	Green Bullet	30 g	60 min	11 %

Boil	Mosaic	10 g	50 min	10 %
Boil	Flyer	30 g	50 min	11 %
Boil	lunga	30 g	40 min	11 %
Boil	Fuggles	30 g	30 min	4.5 %
Boil	Mosaic	20 g	20 min	10 %
Boil	Chinook	30 g	10 min	5.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	23 g	Safale