

# Mocarny góral

- Gravity **22.9 BLG**
- ABV **10.4 %**
- IBU **30**
- SRM **47.6**
- Style **Baltic Porter**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **25.7 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **27.6 liter(s)**
- Total mash volume **36.8 liter(s)**

## Steps

- Temp **64 C**, Time **30 min**
- Temp **68 C**, Time **30 min**
- Temp **75 C**, Time **10 min**

## Mash step by step

- Heat up **27.6 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **30 min** at **64C**
- Keep mash **30 min** at **68C**
- Keep mash **10 min** at **75C**
- Sparge using **7.3 liter(s)** of **76C** water or to achieve **25.7 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Bohemian Pilsner Malt	1 kg (10.9%)	81 %	4
Grain	Monachijski	2.5 kg (27.2%)	80 %	16
Grain	Strzegom Wiedeński	3 kg (32.6%)	79 %	10
Grain	Caramunich® typ I	0.2 kg (2.2%)	73 %	80
Grain	Caraaroma	0.5 kg (5.4%)	78 %	400
Grain	Czekoladowy 650 ebc	0.5 kg (5.4%)	60 %	788
Grain	Weyermann - Carafa II	0.35 kg (3.8%)	70 %	837
Grain	Pszeniczny	0.5 kg (5.4%)	85 %	4
Grain	Fawcett - Pszeniczny Czekoladowy	0.15 kg (1.6%)	73 %	1001
Grain	Płatki owsiane	0.5 kg (5.4%)	60 %	3

## Hops

Use for	Name	Amount	Time	Alpha acid
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Boil	Marynka	30 g	60 min	10 %
Boil	Marynka	30 g	10 min	10 %
Aroma (end of boil)	Lublin (Lubelski)	30 g	0 min	4 %

### Yeasts

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

### Extras

Type	Name	Amount	Use for	Time
Flavor	cukier muscovado	200 g	Boil	0 min