

# Porter

- Gravity **15.9 BLG**
- ABV **6.7 %**
- IBU **24**
- SRM **47.5**
- Style **Robust Porter**

## Batch size

- Expected quantity of finished beer **26 liter(s)**
- Trub loss **5 %**
- Size with trub loss **27.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **35.9 liter(s)**

## Mash information

- Mash efficiency **60 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **22.5 liter(s)**
- Total mash volume **30 liter(s)**

## Steps

- Temp **62 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **0 min**

## Mash step by step

- Heat up **22.5 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **30 min** at **62C**
- Keep mash **30 min** at **72C**
- Keep mash **0 min** at **78C**
- Sparge using **20.9 liter(s)** of **76C** water or to achieve **35.9 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Wiedeński	3 kg (32.6%)	79 %	6
Grain	Monachijski	2 kg (21.7%)	80 %	16
Grain	Pilzneński	1 kg (10.9%)	81 %	4
Grain	Karmelowy Jasny 30EBC	0.5 kg (5.4%)	75 %	30
Grain	Caraaroma	0.5 kg (5.4%)	78 %	400
Grain	Biscuit Malt	0.3 kg (3.3%)	77 %	50
Grain	Special B Malt	0.2 kg (2.2%)	65.2 %	300
Liquid Extract	ekstrakt słodowy ciemny WES	1.7 kg (18.5%)	90 %	700

## Hops

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

## Yeasts

Name	Type	Form	Amount	Laboratory
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Saflager S-23	Lager	Dry	23 g	Fermentis Division of S.I.Lesaffre
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