

## robust porter

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- Gravity **14 BLG**
- ABV **5.8 %**
- IBU **38**
- SRM **30.5**
- Style **Robust Porter**

### Batch size

- Expected quantity of finished beer **10 liter(s)**
- Trub loss **5 %**
- Size with trub loss **10.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **12.1 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **8.3 liter(s)**
- Total mash volume **11 liter(s)**

### Steps

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

### Mash step by step

- Heat up **8.3 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Sparge using **6.6 liter(s)** of **76C** water or to achieve **12.1 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	BESTMALZ - Best Pilsen	1.3 kg (47.3%)	80.5 %	4
Grain	Monachijski	1 kg (36.4%)	80 %	18
Grain	Caraaroma	0.2 kg (7.3%)	78 %	400
Grain	Black (Patent) Malt	0.15 kg (5.5%)	55 %	985
Grain	Special B Malt	0.1 kg (3.6%)	65.2 %	315

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	14 g	60 min	10 %
Boil	Lublin (Lubelski)	15 g	20 min	4 %

### Yeasts

Name	Type	Form	Amount	Laboratory
FM10 O czym szumią wierzby	Ale	Liquid	1400 ml	Fermentum Mobile