

## 5# Robust Porter ze śliwka wędzoną

- Gravity **14 BLG**
- ABV **5.8 %**
- IBU **48**
- SRM **20.3**

### Batch size

- Expected quantity of finished beer **19 liter(s)**
- Trub loss **5 %**
- Size with trub loss **19.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **24.1 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **14.4 liter(s)**
- Total mash volume **19.2 liter(s)**

### Steps

- Temp **67 C**, Time **70 min**
- Temp **69 C**, Time **10 min**
- Temp **76 C**, Time **10 min**

### Mash step by step

- Heat up **14.4 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **70 min** at **67C**
- Keep mash **10 min** at **69C**
- Keep mash **10 min** at **76C**
- Sparge using **14.5 liter(s)** of **76C** water or to achieve **24.1 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Briess - Pale Ale Malt	3.5 kg (72.9%)	90 %	7
Grain	Karmelowy Jasny 30EBC	0.5 kg (10.4%)	95 %	30
Grain	karmel pils	0.5 kg (10.4%)	95 %	5
Grain	Czekoladowy	0.15 kg (3.1%)	60 %	788
Grain	Barwiący	0.15 kg (3.1%)	55 %	985

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	30 g	60 min	13.5 %
Boil	Lublin (Lubelski)	15 g	20 min	4 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Danstar - Nottingham	Ale	Dry	11 g	Danstar

### Extras

Type	Name	Amount	Use for	Time
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Spice	śliwka wędziona	150 g	Boil	15 min
Spice	śliwka wędziona	150 g	Secondary	3 day(s)