

## Krzywa czekoladka Maris #2

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- Gravity **14.7 BLG**
- ABV **6.1 %**
- IBU **35**
- SRM **55.3**
- Style **Robust Porter**

### Batch size

- Expected quantity of finished beer **14 liter(s)**
- Trub loss **0 %**
- Size with trub loss **14.7 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **17.4 liter(s)**

### Mash information

- Mash efficiency **78 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **13.6 liter(s)**
- Total mash volume **17.5 liter(s)**

### Steps

- Temp **68 C**, Time **40 min**
- Temp **72 C**, Time **15 min**
- Temp **76 C**, Time **5 min**

### Mash step by step

- Heat up **13.6 liter(s)** of strike water to **74.9C**
- Add grains
- Keep mash **40 min** at **68C**
- Keep mash **15 min** at **72C**
- Keep mash **5 min** at **76C**
- Sparge using **7.7 liter(s)** of **76C** water or to achieve **17.4 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pale Malt, Maris Otter	2.8 kg (71.8%)	82.5 %	14
Grain	Munich Malt	0.4 kg (10.3%)	80 %	18
Grain	Oats, Flaked	0.3 kg (7.7%)	80 %	4
Grain	Viking Chocolate Dark Malt	0.25 kg (6.4%)	71 %	2400
Grain	Carafa II	0.15 kg (3.8%)	70 %	2164

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	18 g	60 min	8.7 %
Boil	Fuggles	15 g	20 min	5.9 %
Boil	East Kent Goldings	30 g	5 min	5.1 %

### Yeasts

Name	Type	Form	Amount	Laboratory
SafAle English Ale	Ale	Dry	11 g	DCL/Fermentis