

## FM13 porter

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- Gravity **15.9 BLG**
- ABV **6.7 %**
- IBU **36**
- SRM **23**
- Style **Foreign Extra Stout**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **19.5 liter(s)**
- Total mash volume **26 liter(s)**

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	4 kg (61.5%)	80 %	5
Grain	Strzegom Czekoladowy 400	0.5 kg (7.7%)	68 %	400
Grain	MEP Carmel	0.7 kg (10.8%)	70 %	100
Grain	SWAEN Black Barley	0.1 kg (1.5%)	55 %	1000
Grain	Płatki żytnie	0.6 kg (9.2%)	85 %	---
Grain	Płatki pszeniczne	0.6 kg (9.2%)	85 %	---

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Lublin (Lubelski)	120 g	30 min	4 %

### Yeasts

Name	Type	Form	Amount	Laboratory
FM13 Irlandzkie Ciemności	Ale	Liquid	100 ml	Fermentum Mobile