

## Robust porter marxam

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- Gravity **14.5 BLG**
- ABV **6 %**
- IBU **36**
- SRM **32.3**
- Style **Robust Porter**

### Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.5 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18.6 liter(s)**
- Total mash volume **24.8 liter(s)**

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pilsner malt	5.2 kg (83.9%)	82 %	4
Grain	Czekoladowy	0.4 kg (6.5%)	60 %	788
Grain	Strzegom Karmel 300	0.4 kg (6.5%)	70 %	299
Grain	Barwiący	0.1 kg (1.6%)	55 %	985
Grain	Strzegom Czekoladowy ciemny	0.1 kg (1.6%)	68 %	1200

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	20 g	60 min	15.5 %
Boil	Chinook	5 g	15 min	13 %
Boil	Citra	5 g	15 min	12 %
Aroma (end of boil)	Amarillo	10 g	0 min	9.5 %
Aroma (end of boil)	Chinook	5 g	0 min	13 %

### Yeasts

Name	Type	Form	Amount	Laboratory
US05	Ale	Slant	500 ml	---