

## Marcowe

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- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **39**
- SRM **6**

### Batch size

- Expected quantity of finished beer **29 liter(s)**
- Trub loss **5 %**
- Size with trub loss **30.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **2 %/h**
- Boil size **31.6 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **19.5 liter(s)**
- Total mash volume **26 liter(s)**

### Steps

- Temp **69 C**, Time **50 min**
- Temp **76 C**, Time **0 min**

### Mash step by step

- Heat up **19.5 liter(s)** of strike water to **77.2C**
- Add grains
- Keep mash **50 min** at **69C**
- Keep mash **0 min** at **76C**
- Sparge using **18.6 liter(s)** of **76C** water or to achieve **31.6 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	4 kg (61.5%)	81 %	4
Grain	Monachijski	2 kg (30.8%)	80 %	16
Grain	Red Active Viking	0.5 kg (7.7%)	79 %	35

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	30 g	60 min	10 %
Boil	Magnum	5 g	60 min	13.5 %
Aroma (end of boil)	Lublin (Lubelski)	60 g	15 min	4 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Saflager W 34/70	Lager	Dry	34.5 g	Fermentis