

## Nr3 - The Ale of Mordor

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- Gravity **17.3 BLG**
- ABV **7.4 %**
- IBU **51**
- SRM **5.2**
- Style **American IPA**

### Batch size

- Expected quantity of finished beer **18 liter(s)**
- Trub loss **5 %**
- Size with trub loss **18.9 liter(s)**
- Boil time **80 min**
- Evaporation rate **10 %/h**
- Boil size **23.5 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **22.1 liter(s)**
- Total mash volume **28.4 liter(s)**

### Steps

- Temp **68 C**, Time **60 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **10 min**

### Mash step by step

- Heat up **22.1 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **10 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **7.7 liter(s)** of **76C** water or to achieve **23.5 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Słód Pilzneński Zero Viking	2 kg (31.7%)	82 %	4
Grain	Viking Pale Ale malt	3 kg (47.6%)	80 %	5.5
Grain	Płatki owsiane	0.2 kg (3.2%)	85 %	3
Grain	Weyermann - Carapils	0.5 kg (7.9%)	78 %	4
Grain	Strzegom Wiedeński	0.6 kg (9.5%)	79 %	8

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Chinook	30 g	60 min	10.5 %
Boil	Mosaic	10 g	50 min	11.3 %
Aroma (end of boil)	Mosaic	20 g	10 min	11.3 %
Aroma (end of boil)	Citra	25 g	0 min	12.8 %
Dry Hop	Citra	40 g	3 day(s)	12.8 %
Dry Hop	Mosaic	40 g	3 day(s)	11.3 %
Dry Hop	Amarillo	20 g	3 day(s)	7.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
us-05	Ale	Dry	11.5 g	---