

## #67 Mona(r)ch

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- Gravity **12.6 BLG**
- ABV **5.1 %**
- IBU **45**
- SRM **8**
- Style **Munich Dunkel**

### Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.8 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.5 liter(s)**
- Total mash volume **22 liter(s)**

### Steps

- Temp **68 C**, Time **30 min**
- Temp **72 C**, Time **30 min**

### Mash step by step

- Heat up **16.5 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **30 min** at **68C**
- Keep mash **30 min** at **72C**
- Sparge using **16.8 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Monachijski	3 kg (54.5%)	80 %	16
Grain	Pilzneński	2 kg (36.4%)	81 %	4
Grain	Caramel/Crystal Malt - 30L	0.5 kg (9.1%)	75 %	59

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnat	30 g	60 min	13.2 %
Aroma (end of boil)	Cascade	28 g	10 min	6 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	11.5 g	Fermentis