

## Munich Dunkel Galaxy/Saaz (Pils) #1 22-10-2022 r.

- Gravity **12.6 BLG**
- ABV **5.1 %**
- IBU **22**
- SRM **7.6**
- Style **Munich Dunkel**

### Batch size

- Expected quantity of finished beer **27 liter(s)**
- Trub loss **5 %**
- Size with trub loss **31.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **37.2 liter(s)**

### Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **28 liter(s)**
- Total mash volume **36 liter(s)**

### Steps

- Temp **64 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **10 min**

### Mash step by step

- Heat up **28 liter(s)** of strike water to **70.3C**
- Add grains
- Keep mash **30 min** at **64C**
- Keep mash **30 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **17.2 liter(s)** of **76C** water or to achieve **37.2 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Monachijski	5 kg (62.5%)	80 %	16
Grain	Strzegom Wiedeński	2 kg (25%)	79 %	10
Grain	Pilzneński	1 kg (12.5%)	81 %	4

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	15 g	45 min	15.3 %
Boil	Saaz (Czech Republic)	30 g	20 min	4.5 %
Aroma (end of boil)	Saaz (Czech Republic)	20 g	2 min	4.5 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Saflager W 34/70	Lager	Slant	500 ml	Fermentis

### Extras

Type	Name	Amount	Use for	Time
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Fining	Irish Moss	5 g	Boil	10 min
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