

MUNICH

- Gravity **12.6 BLG**
- ABV **5.1 %**
- IBU **26**
- SRM **20.9**
- Style **Munich Dunkel**

Batch size

- Expected quantity of finished beer **32 liter(s)**
- Trub loss **10 %**
- Size with trub loss **35.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **42.2 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **29.8 liter(s)**
- Total mash volume **38.3 liter(s)**

Steps

- Temp **62 C**, Time **50 min**
- Temp **72 C**, Time **30 min**
- Temp **76 C**, Time **5 min**

Mash step by step

- Heat up **29.8 liter(s)** of strike water to **68C**
- Add grains
- Keep mash **50 min** at **62C**
- Keep mash **30 min** at **72C**
- Keep mash **5 min** at **76C**
- Sparge using **20.9 liter(s)** of **76C** water or to achieve **42.2 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Monachijski typ I	5 kg (58.8%)	79 %	16
Grain	Pilzneński	3 kg (35.3%)	81 %	4
Grain	Caraaroma	0.2 kg (2.4%)	78 %	400
Grain	Strzegom Barwiący	0.3 kg (3.5%)	68 %	1300

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	marynka	25 g	60 min	11 %
Boil	Tettnang	50 g	20 min	4 %

Yeasts

Name	Type	Form	Amount	Laboratory
diamond lager	Lager	Dry	11 g	---