

Munich Dunkel

- Gravity **12.6 BLG**
- ABV **5.1 %**
- IBU **20**
- SRM **11.3**
- Style **Munich Dunkel**

Batch size

- Expected quantity of finished beer **10 liter(s)**
- Trub loss **5 %**
- Size with trub loss **10.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **12.7 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **7.1 liter(s)**
- Total mash volume **9.4 liter(s)**

Steps

- Temp **65.5 C**, Time **45 min**

Mash step by step

- Heat up **7.1 liter(s)** of strike water to **73C**
- Add grains
- Keep mash **45 min** at **65.5C**
- Sparge using **8 liter(s)** of **76C** water or to achieve **12.7 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Vienna Malt	1.75 kg (74.3%)	81 %	8
Grain	Briess - Munich Malt 20L	0.35 kg (14.9%)	74 %	39
Grain	Pale Chocolate	0.08 kg (3.4%)	72 %	400
Grain	Melanoiden Malt	0.175 kg (7.4%)	80 %	39

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Tettnang	30 g	30 min	4 %