

Dunkel A

- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **11**
- SRM **7.9**
- Style **Munich Dunkel**

Batch size

- Expected quantity of finished beer **18 liter(s)**
- Trub loss **5 %**
- Size with trub loss **18.9 liter(s)**
- Boil time **75 min**
- Evaporation rate **10 %/h**
- Boil size **23.3 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **15.8 liter(s)**
- Total mash volume **20.3 liter(s)**

Steps

- Temp **68 C**, Time **60 min**

Mash step by step

- Heat up **15.8 liter(s)** of strike water to **77.9C**
- Add grains
- Keep mash **60 min** at **68C**
- Sparge using **14 liter(s)** of **76C** water or to achieve **23.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Briess - Pilsen Malt	4 kg (90.9%)	80 %	20
Grain	Briess - Wheat Malt, White	2 kg (44.4%)	85 %	5
Grain	Briess - Caracrysal Wheat Malt	0.5 kg (11.1%)	78 %	108

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Hersbrucker	30 g	60 min	4.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Lager	Dry	23 g	Fermentis