

4# Dunkelweizen

- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **20**
- SRM **21.1**
- Style **Dunkelweizen**

Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **5 %**
- Size with trub loss **12.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **15.2 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **10.8 liter(s)**
- Total mash volume **13.9 liter(s)**

Steps

- Temp **45 C**, Time **10 min**
- Temp **68 C**, Time **40 min**
- Temp **72 C**, Time **20 min**
- Temp **76 C**, Time **5 min**

Mash step by step

- Heat up **10.8 liter(s)** of strike water to **48.6C**
- Add grains
- Keep mash **10 min** at **45C**
- Keep mash **40 min** at **68C**
- Keep mash **20 min** at **72C**
- Keep mash **5 min** at **76C**
- Sparge using **7.5 liter(s)** of **76C** water or to achieve **15.2 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Słód pszeniczny Bestmalz	2 kg (64.5%)	82 %	5
Grain	Viking Munich Malt	0.8 kg (25.8%)	78 %	18
Grain	Strzegom Karmel 600	0.3 kg (9.7%)	68 %	601

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Hallertau	25 g	60 min	4.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
Mangrove Jack's M20 Bavarian Wheat	Wheat	Dry	6 g	Mangrove Jack's