

## dunkelweizen #2

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- Gravity **13.3 BLG**
- ABV **5.5 %**
- IBU **27**
- SRM **16.5**
- Style **Dunkelweizen**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15.8 liter(s)**
- Total mash volume **21 liter(s)**

### Steps

- Temp **42 C**, Time **20 min**
- Temp **52 C**, Time **10 min**
- Temp **64 C**, Time **45 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **10 min**

### Mash step by step

- Heat up **15.8 liter(s)** of strike water to **45.7C**
- Add grains
- Keep mash **20 min** at **42C**
- Keep mash **10 min** at **52C**
- Keep mash **45 min** at **64C**
- Keep mash **15 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **14.8 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pszeniczny	2.5 kg (47.6%)	85 %	4
Grain	Pilzneński	1.5 kg (28.6%)	81 %	4
Grain	Strzegom Monachijski typ II	0.5 kg (9.5%)	79 %	22
Grain	Caramunich® typ I	0.25 kg (4.8%)	73 %	80
Grain	Special B Castle	0.2 kg (3.8%)	70 %	350
Grain	Caraaroma	0.3 kg (5.7%)	78 %	400

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Perle	20 g	55 min	7 %
Boil	bramling cross	30 g	19 min	4 %
Boil	Motueka	15 g	15 min	6.7 %

### Yeasts

Name	Type	Form	Amount	Laboratory
wb-06	Wheat	Slant	100 ml	---

### Extras

Type	Name	Amount	Use for	Time
Water Agent	sól zakwaszający	170 g	Mash	60 min