

# dunkelweizen a filtrator słaby

- Gravity **11.2 BLG**
- ABV **4.5 %**
- IBU **29**
- SRM **32.2**
- Style **Dunkelweizen**

## Batch size

- Expected quantity of finished beer **52 liter(s)**
- Trub loss **5 %**
- Size with trub loss **54.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **65.8 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **2.5 liter(s) / kg**
- Mash size **29.4 liter(s)**
- Total mash volume **41.1 liter(s)**

## Steps

- Temp **45 C**, Time **15 min**
- Temp **68 C**, Time **40 min**
- Temp **74 C**, Time **20 min**

## Mash step by step

- Heat up **29.4 liter(s)** of strike water to **50C**
- Add grains
- Keep mash **15 min** at **45C**
- Keep mash **40 min** at **68C**
- Keep mash **20 min** at **74C**
- Sparge using **48.2 liter(s)** of **76C** water or to achieve **65.8 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pilsner malt	2 kg (17%)	82 %	4
Grain	Maris Otter Crisp	2 kg (17%)	83 %	6
Grain	Viking Wheat Malt	3 kg (25.5%)	83 %	5
Grain	Melanoiden Malt	2 kg (17%)	80 %	39
Grain	Caraaroma	0.6 kg (5.1%)	78 %	400
Grain	Castle Cafe	1 kg (8.5%)	75.5 %	480
Grain	Viking carmel 400	0.65 kg (5.5%)	70 %	400
Grain	Jęczmień palony	0.5 kg (4.3%)	55 %	1150

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	35 g	60 min	8 %
Boil	Lublin (Lubelski)	25 g	15 min	4 %
Boil	Magn	20 g	60 min	11 %
Boil	Zula	22 g	15 min	9.7 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Wb 06	Wheat	Slant	300 ml	---

### Extras

Type	Name	Amount	Use for	Time
Spice	Kora cynamonu	20 g	Boil	60 min
Spice	Gałka muszkatałowa	5 g	Boil	60 min
Spice	Anyż	4 g	Boil	60 min
Spice	Pieprz czarny	10 g	Boil	60 min
Spice	Goździki	1.5 g	Boil	60 min
Spice	Korzeń imbiru	40 g	Boil	60 min

### Notes

- Jęczmień palony 20 min w 74°C  
Pożywka dla drożdży 4 g  
Kwas mlekowy do wystadzania 5 ml  
Wystadzanie 10L 78°C  
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