

Wędzona ciemna pszenica

- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **21**
- SRM **17.3**
- Style **Dunkelweizen**

Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.5 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **13.8 liter(s)**
- Total mash volume **18.4 liter(s)**

Steps

- Temp **44 C**, Time **15 min**
- Temp **64 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **76 C**, Time **10 min**

Mash step by step

- Heat up **13.8 liter(s)** of strike water to **48C**
- Add grains
- Keep mash **15 min** at **44C**
- Keep mash **30 min** at **64C**
- Keep mash **30 min** at **72C**
- Keep mash **10 min** at **76C**
- Sparge using **17.3 liter(s)** of **76C** water or to achieve **26.5 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	2.1 kg (45.7%)	81 %	4
Grain	Pszeniczny	1 kg (21.7%)	85 %	4
Grain	Grodziski pszeniczny wędzony dębem	1 kg (21.7%)	80 %	3
Grain	cookie	0.2 kg (4.3%)	80 %	70
Grain	Fawcett - Pale Chocolate	0.15 kg (3.3%)	71 %	600
Grain	Jęczmień palony	0.15 kg (3.3%)	55 %	985

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	20 g	40 min	10 %
Boil	Sybilla	10 g	15 min	3.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
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FM41 Gwoździe i Banany	Wheat	Slant	150 ml	Fermentum Mobile
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