ciemna pszenica

- Gravity **11.4 BLG**
- ABV **4.6 %**
- IBU **23**
- SRM **15.1**
- 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 **80 min**
- Evaporation rate **10 %/h**
- Boil size **27.3 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **13.2 liter(s)**
- Total mash volume **17.6 liter(s)**

Steps

- Temp **46 C**, Time **10 min**
- Temp **53 C**, Time **15 min**
- Temp **64 C**, Time **30 min**
- Temp **72 C**, Time **10 min**

Mash step by step

- Heat up **13.2 liter(s)** of strike water to **50.3C**
- Add grains
- Keep mash **10 min** at **46C**
- Keep mash **15 min** at **53C**
- Keep mash **30 min** at **64C**
- Keep mash **10 min** at **72C**
- Sparge using **18.5 liter(s)** of **76C** water or to achieve **27.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pszeniczny	2 kg *(45.5%)*	85 %	4
Grain	Pilzneński	1.4 kg *(31.8%)*	81 %	4
Grain	Strzegom Monachijski typ II	0.6 kg *(13.6%)*	79 %	22
Grain	Strzegom Czekoladowy jasny	0.2 kg *(4.5%)*	68 %	400
Grain	Carafa II	0.1 kg *(2.3%)*	70 %	812
Grain	Weyermann Specjal W	0.1 kg *(2.3%)*	68 %	300

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	10 g	60 min	13.5 %
Boil	Saaz (Czech Republic)	15 g	30 min	4.5 %
Boil	Saaz (Czech Republic)	15 g	10 min	4.5 %

Yeasts

Recipe has been printed via **BREWNESS.com** - a complex online solution for homebrewers to track brewing process easily.

Name	Type	Form	Amount	Laboratory
FM41 Gwoździe i Banany	Wheat	Slant	70 ml	Fermentum Mobile