Pszeniczne Ciemne Twój Browar

- Gravity **11.3 BLG**
- ABV **---**
- IBU **15**
- SRM **25**
- Style **Dunkelweizen**

Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **30.3 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15.4 liter(s)**
- Total mash volume **20.5 liter(s)**

Steps

- Temp **44 C**, Time **15 min**
- Temp **63 C**, Time **15 min**
- Temp **72 C**, Time **45 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **15.4 liter(s)** of strike water to **48C**
- Add grains
- Keep mash **15 min** at **44C**
- Keep mash **15 min** at **63C**
- Keep mash **15 min** at **72C**
- Keep mash **45 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **20 liter(s)** of **76C** water or to achieve **30.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pszeniczny	2.75 kg *(53.7%)*	82 %	4
Grain	Monachijski	1 kg *(19.5%)*	79 %	16
Grain	Strzegom Wiedeński	1 kg *(19.5%)*	79 %	6
Grain	Karmelowy ciemny	0.25 kg *(4.9%)*	68 %	650
Grain	Czekoladowy	0.12 kg *(2.3%)*	72.7 %	1000

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Lublin (Lubelski)	37 g	60 min	4 %

Yeasts

Name	Type	Form	Amount	Laboratory
Mangrove Jack's M20 Bavarian Wheat	Wheat	Dry	10 g	Mangrove Jack's