

# Żniwiarz ciemne

- Gravity **11.2 BLG**
- ABV **4.5 %**
- IBU **13**
- SRM **9.8**
- Style **Dunkelweizen**

## Batch size

- Expected quantity of finished beer **21.5 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22.6 liter(s)**
- Boil time **80 min**
- Evaporation rate **10 %/h**
- Boil size **28 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **16.6 liter(s)**
- Total mash volume **21.3 liter(s)**

## Steps

- Temp **46 C**, Time **20 min**
- Temp **53 C**, Time **15 min**
- Temp **63 C**, Time **30 min**
- Temp **72 C**, Time **10 min**

## Mash step by step

- Heat up **16.6 liter(s)** of strike water to **49.7C**
- Add grains
- Keep mash **20 min** at **46C**
- Keep mash **15 min** at **53C**
- Keep mash **30 min** at **63C**
- Keep mash **10 min** at **72C**
- Sparge using **16.1 liter(s)** of **76C** water or to achieve **28 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	słód pilzneński	1.52 kg (32.1%)	80 %	3.5
Grain	Słód pszeniczny Bestmalz	2.2 kg (46.5%)	82 %	5
Grain	Strzegom Monachijski typ II	0.71 kg (15%)	79 %	22
Grain	Weyermann - Carawheat	0.24 kg (5.1%)	77 %	97
Grain	Fawcett - Pszeniczny Czekoladowy	0.06 kg (1.3%)	73 %	1001

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Lublin (Lubelski)	23.34 g	70 min	4 %
Boil	Lublin (Lubelski)	5.84 g	30 min	4 %
Aroma (end of boil)	Lublin (Lubelski)	5.84 g	5 min	4 %

## Yeasts

<b>Name</b>	<b>Type</b>	<b>Form</b>	<b>Amount</b>	<b>Laboratory</b>
WLP300 - Hefeweizen Ale Yeast	Wheat	Slant	175.01 ml	White Labs

## Notes

- BLG nastawne -> 12,5  
*Jun 5, 2020, 5:12 PM*