

## 3# Czorno pszenico

- Gravity **9.3 BLG**
- ABV ---
- IBU **15**
- SRM **25.5**
- Style **Dunkelweizen**

### Batch size

- Expected quantity of finished beer **10 liter(s)**
- Trub loss **5 %**
- Size with trub loss **10.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **12.7 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **5.1 liter(s)**
- Total mash volume **6.8 liter(s)**

### Steps

- Temp **44 C**, Time **20 min**
- Temp **63 C**, Time **45 min**
- Temp **72 C**, Time **20 min**

### Mash step by step

- Heat up **5.1 liter(s)** of strike water to **48C**
- Add grains
- Keep mash **20 min** at **44C**
- Keep mash **45 min** at **63C**
- Keep mash **20 min** at **72C**
- Sparge using **9.3 liter(s)** of **76C** water or to achieve **12.7 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann pszeniczny jasny	1.6 kg (94.1%)	80 %	6
Grain	Strzegom Czekoladowy 1200	0.1 kg (5.9%)	68 %	1202

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	3 g	40 min	15.5 %
Boil	Lublin (Lubelski)	5 g	20 min	4 %

### Yeasts

Name	Type	Form	Amount	Laboratory
FM40 Pszeniczny Łan	Wheat	Liquid	30 ml	Fermentum Mobile

### Extras

Type	Name	Amount	Use for	Time
Water Agent	guwno XD	700 g	Primary	50 day(s)