

Ciemny pociąg

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **10**
- SRM **15.6**
- 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 **65 min**
- Evaporation rate **10 %/h**
- Boil size **30.5 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **19.9 liter(s)**
- Total mash volume **25.6 liter(s)**

Steps

- Temp **46 C**, Time **10 min**
- Temp **53 C**, Time **15 min**
- Temp **63 C**, Time **30 min**
- Temp **73 C**, Time **10 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **19.9 liter(s)** of strike water to **49.7C**
- Add grains
- Keep mash **10 min** at **46C**
- Keep mash **15 min** at **53C**
- Keep mash **30 min** at **63C**
- Keep mash **10 min** at **73C**
- Keep mash **5 min** at **78C**
- Sparge using **16.3 liter(s)** of **76C** water or to achieve **30.5 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	1.8 kg (31.6%)	81 %	4
Grain	Pszeniczny	2.8 kg (49.1%)	85 %	4
Grain	Strzegom Monachijski typ II	0.6 kg (10.5%)	79 %	22
Grain	Strzegom Karmel 300	0.3 kg (5.3%)	70 %	299
Grain	Strzegom Czekoladowy jasny	0.1 kg (1.8%)	68 %	400
Grain	Strzegom pszenica prażona	0.1 kg (1.8%)	70 %	1000

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Lublin (Lubelski)	10 g	60 min	4 %
Boil	Lublin (Lubelski)	20 g	25 min	4 %
Boil	Lublin (Lubelski)	20 g	5 min	4 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safbrew WB-06	Wheat	Dry	11 g	Safbrew