

Český ležák tmavý

- Gravity **13.3 BLG**
- ABV **5.5 %**
- IBU **27**
- SRM **28.5**
- Style **Schwarzbier**

Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **85 min**
- Evaporation rate **10 %/h**
- Boil size **28.9 liter(s)**

Mash information

- Mash efficiency **87 %**
- Liquor-to-grist ratio **3.2 liter(s) / kg**
- Mash size **16.8 liter(s)**
- Total mash volume **22.1 liter(s)**

Steps

- Temp **51 C**, Time **10 min**
- Temp **62 C**, Time **30 min**
- Temp **72 C**, Time **40 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **16.8 liter(s)** of strike water to **55.8C**
- Add grains
- Keep mash **10 min** at **51C**
- Keep mash **30 min** at **62C**
- Keep mash **40 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **17.4 liter(s)** of **76C** water or to achieve **28.9 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	2.5 kg (47.6%)	80 %	4
Grain	Strzegom Monachijski typ I	2 kg (38.1%)	79 %	16
Grain	Strzegom Karmel 600	0.5 kg (9.5%)	68 %	601
Grain	Black (Patent) Malt	0.25 kg (4.8%)	55 %	985

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Premiant	30 g	60 min	6.6 %
Boil	Cascade PL	10 g	45 min	5.5 %
Boil	Saaz (Czech Republic)	15 g	15 min	4 %

Yeasts

Name	Type	Form	Amount	Laboratory
Saflager W 34/70	Lager	Dry	22 g	Fermentis

Extras

Type	Name	Amount	Use for	Time
Fining	mech irlandzki	5 g	Boil	10 min