

## #? Ceski Tmavy Lezak

- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **26**
- SRM **27.4**
- Style **Schwarzbier**

### Batch size

- Expected quantity of finished beer **11 liter(s)**
- Trub loss **6 %**
- Size with trub loss **11.7 liter(s)**
- Boil time **60 min**
- Evaporation rate **12 %/h**
- Boil size **14.3 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **10.5 liter(s)**
- Total mash volume **13.5 liter(s)**

### Steps

- Temp **68 C**, Time **60 min**

### Mash step by step

- Heat up **10.5 liter(s)** of strike water to **74.9C**
- Add grains
- Keep mash **60 min** at **68C**
- Sparge using **6.8 liter(s)** of **76C** water or to achieve **14.3 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	1.5 kg (50%)	80 %	4
Grain	Strzegom Monachijski typ I	0.9 kg (30%)	79 %	16
Grain	Special B Malt	0.15 kg (5%)	65.2 %	315
Grain	crystal 150	0.15 kg (5%)	75 %	150
Grain	Słód Caramunich Typ II Weyermann	0.15 kg (5%)	73 %	120
Grain	Carafa II special	0.15 kg (5%)	70 %	1150

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	12 g	60 min	11 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Mangrove Jack's M84 Bohemian Lager	Lager	Slant	100 ml	Mangrove Jack's