

## 24. KOŻLAK

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- Gravity **17.3 BLG**
- ABV **7.4 %**
- IBU **28**
- SRM **8.1**
- Style **Traditional Bock**

### 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 **13.2 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **10.2 liter(s)**
- Total mash volume **13.6 liter(s)**

### Steps

- Temp **63 C**, Time **10 min**
- Temp **100 C**, Time **1 min**
- Temp **72 C**, Time **15 min**
- Temp **72 C**, Time **40 min**
- Temp **76 C**, Time **10 min**

### Mash step by step

- Heat up **10.2 liter(s)** of strike water to **70.2C**
- Add grains
- Keep mash **10 min** at **63C**
- Keep mash **40 min** at **72C**
- Keep mash **15 min** at **72C**
- Keep mash **10 min** at **76C**
- Keep mash **1 min** at **100C**
- Sparge using **6.4 liter(s)** of **76C** water or to achieve **13.2 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	2 kg (58.8%)	81 %	4
Grain	Monachijski	1 kg (29.4%)	80 %	16
Grain	Karmelowy Jasny 30EBC	0.25 kg (7.4%)	75 %	30
Grain	Weyermann - Caraamber	0.1 kg (2.9%)	75 %	65
Grain	Weyermann - Carared	0.05 kg (1.5%)	75 %	45

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	15 g	50 min	11 %

### Notes

- Dekokcja 1/3 zacieru zagotować i zawrócić  
*Dec 8, 2019, 9:52 AM*