

KOŻLAK

- Gravity **13.6 BLG**
- ABV **5.6 %**
- IBU **27**
- SRM **13.8**
- Style **Traditional Bock**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **27.6 liter(s)**

Mash information

- Mash efficiency **65 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **20.1 liter(s)**
- Total mash volume **26.8 liter(s)**

Steps

- Temp **62 C**, Time **20 min**
- Temp **70 C**, Time **45 min**

Mash step by step

- Heat up **20.1 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **20 min** at **62C**
- Keep mash **45 min** at **70C**
- Sparge using **14.2 liter(s)** of **76C** water or to achieve **27.6 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	3 kg (44.8%)	80 %	4
Grain	Strzegom Wiedeński	1 kg (14.9%)	79 %	10
Grain	Strzegom Monachijski typ I	0.5 kg (7.5%)	79 %	16
Grain	Strzegom Bursztynowy	0.7 kg (10.4%)	70 %	49
Grain	Karmelowy Jasny 30EBC	0.7 kg (10.4%)	75 %	30
Grain	Płatki owsiane	0.4 kg (6%)	85 %	3
Grain	Jęczmień palony	0.1 kg (1.5%)	55 %	985
Grain	Jęczmień niesłodowany	0.3 kg (4.5%)	75 %	2

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	26 g	60 min	6.5 %
Boil	Marynka	14 g	40 min	8 %

Yeasts

Name	Type	Form	Amount	Laboratory
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Saflager W 34/70	Lager	Dry	23 g	Fermentis
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Extras

Type	Name	Amount	Use for	Time
Fining	whirlfloc	1.25 g	Boil	10 min