

KBS po mojemu

- Gravity **21.6 BLG**
- ABV **9.7 %**
- IBU **51**
- SRM **52.8**
- Style **Foreign Extra Stout**

Batch size

- Expected quantity of finished beer **16 liter(s)**
- Trub loss **5 %**
- Size with trub loss **16.8 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **21.2 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **2.6 liter(s) / kg**
- Mash size **20.5 liter(s)**
- Total mash volume **28.4 liter(s)**

Steps

- Temp **68 C**, Time **75 min**
- Temp **76 C**, Time **5 min**

Mash step by step

- Heat up **20.5 liter(s)** of strike water to **77.2C**
- Add grains
- Keep mash **75 min** at **68C**
- Keep mash **5 min** at **76C**
- Sparge using **8.6 liter(s)** of **76C** water or to achieve **21.2 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	6 kg (75.9%)	79 %	6
Grain	Płatki owsiane	0.7 kg (8.9%)	85 %	3
Grain	Jęczmień palony	0.35 kg (4.4%)	55 %	985
Grain	Castle Czekoladowy	0.35 kg (4.4%)	60 %	900
Grain	Weyermann - Dehusked Carafa III	0.25 kg (3.2%)	70 %	1024
Grain	Caraaroma	0.25 kg (3.2%)	78 %	400

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	30 g	60 min	15.5 %
Boil	Fuggles	20 g	25 min	4.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
FM13 Irlandzkie Ciemności	Ale	Slant	250 ml	Fermentum Mobile

Extras

Type	Name	Amount	Use for	Time
Flavor	Czekolada gorzka LINDT	60 g	Boil	15 min
Flavor	Ziarna kakaowca	40 g	Boil	15 min
Flavor	Kawa Brazil Mogiana	50 g	Boil	0 min
Flavor	Kawa ???	50 g	Secondary	14 day(s)
Flavor	Płatki bourbon	45 g	Secondary	14 day(s)