

[18] ⊥ "Sombrero negro"

- Gravity **15 BLG**
- ABV ---
- IBU **27**
- SRM **40**
- Style **Sweet Stout**

Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **32.2 liter(s)**

Mash information

- Mash efficiency **56.5 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **20.4 liter(s)**
- Total mash volume **27.2 liter(s)**

Steps

- Temp **67 C**, Time **120 min**
- Temp **76 C**, Time **10 min**

Mash step by step

- Heat up **20.4 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **120 min** at **67C**
- Keep mash **10 min** at **76C**
- Sparge using **18.6 liter(s)** of **76C** water or to achieve **32.2 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Château Pale Ale Castle	4.5 kg (45.3%)	85 %	8
Grain	Monachijski Castle	1 kg (10.1%)	80 %	16
Grain	Castle Abbey Malt	0.2 kg (2%)	75 %	45
Grain	Caramunich Weyermann	0.2 kg (2%)	71.7 %	90
Grain	Special W Weyermann	0.2 kg (2%)	75 %	280
Grain	Special B Castle	0.2 kg (2%)	75 %	350
Grain	Strzegom Czekoladowy jasny	0.2 kg (2%)	68 %	400
Grain	Weyermann - Carafa I	0.1 kg (1%)	70 %	900
Grain	Czekoladowy Castle	0.1 kg (1%)	75 %	900
Grain	Weyermann - Carafa II	0.1 kg (1%)	70 %	1150
Adjunct	Płatki owsiane podpiekane	1.4 kg (14.1%)	50 %	2
Sugar	laktoza	1 kg (10.1%)	70 %	0
Adjunct	kakao	0.74 kg (7.4%)	50 %	400

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Kent Goldings	50 g	60 min	6.2 %

Yeasts

Name	Type	Form	Amount	Laboratory
FM52 Amerykański Sen	Ale	Slant	2500 ml	Fermentum Mobile

Extras

Type	Name	Amount	Use for	Time
Flavor	kakao	0.74 g	Mash	30 min
Flavor	Laktoza	1000 g	Boil	15 min
Flavor	Wanilia smażona 3 laski	30 g	Secondary	7 day(s)
Flavor	Płatki kokosowe prażone z oddzielonym tłuszczem	450 g	Secondary	7 day(s)

Notes

- https://www.youtube.com/watch?v=l361xD_tnXA

Płatki owsiane - piec 60 min w 150°C i przez 48 h ma odpoczywać żeby wyzbyć się cierpkiego zapachu
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