

chocolate-milk?

- Gravity **15.9 BLG**
- ABV **6.7 %**
- IBU **27**
- SRM **29.7**

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 **10 %/h**
- Boil size **25.3 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **3.9 liter(s)**
- Total mash volume **5.2 liter(s)**

Steps

- Temp **70 C**, Time **60 min**

Mash step by step

- Heat up **3.9 liter(s)** of strike water to **78.3C**
- Add grains
- Keep mash **60 min** at **70C**
- Sparge using **22.7 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Czekoladowy ciemny	0.3 kg (5.8%)	68 %	1200
Grain	Karmelowy Jasny 30EBC	0.5 kg (9.6%)	75 %	30
Grain	Strzegom Czekoladowy jasny	0.5 kg (9.6%)	68 %	400
Liquid Extract	WES ekstrakt słodowy jasny	3.4 kg (65.4%)	80 %	---
Sugar	Milk Sugar (Lactose)	0.5 kg (9.6%)	76.1 %	0

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Challenger	40 g	60 min	7 %

Yeasts

Name	Type	Form	Amount	Laboratory
Mangrove Jack's M42 New World Strong Ale	Ale	Dry	10 g	Mangrove Jack's