

Brown sugar

- Gravity **14 BLG**
- ABV ---
- IBU **67**
- SRM **25.8**
- Style **American Brown Ale**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.4 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **17.8 liter(s)**
- Total mash volume **22.9 liter(s)**

Steps

- Temp **62 C**, Time **20 min**
- Temp **72 C**, Time **35 min**
- Temp **76 C**, Time **10 min**

Mash step by step

- Heat up **17.8 liter(s)** of strike water to **68C**
- Add grains
- Keep mash **20 min** at **62C**
- Keep mash **35 min** at **72C**
- Keep mash **10 min** at **76C**
- Sparge using **13.7 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	3.75 kg (73.5%)	80 %	7.5
Grain	Strzegom Wiedeński	0.75 kg (14.7%)	79 %	10
Grain	Strzegom Karmel 150	0.3 kg (5.9%)	75 %	150
Grain	Strzegom Czekoladowy ciemny	0.3 kg (5.9%)	68 %	1200

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Galaxy	20 g	60 min	15 %
Boil	Amarillo	20 g	30 min	9.5 %
Boil	Citra	30 g	10 min	12 %
Boil	Cascade	30 g	5 min	6 %
Dry Hop	Citra	50 g	4 day(s)	12 %
Dry Hop	Cascade	50 g	4 day(s)	6 %

Yeasts

Name	Type	Form	Amount	Laboratory
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FM52 Amerykański Sen	Ale	Liquid	150 ml	Fermentum Mobile
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