

JACK BROWN

- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **50**
- SRM **22.2**

Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **29.6 liter(s)**

Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **18.9 liter(s)**
- Total mash volume **24.3 liter(s)**

Steps

- Temp **64 C**, Time **60 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **18.9 liter(s)** of strike water to **70.3C**
- Add grains
- Keep mash **60 min** at **64C**
- Keep mash **30 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **16.1 liter(s)** of **76C** water or to achieve **29.6 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	3 kg (55.6%)	80 %	4
Grain	Strzegom Monachijski typ II	2 kg (37%)	80 %	22
Grain	Jęczmień palony	0.2 kg (3.7%)	55 %	985
Grain	Strzegom Czekoladowy 1200	0.1 kg (1.9%)	68 %	1202
Grain	Strzegom Karmel 600	0.1 kg (1.9%)	68 %	601

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	20 g	60 min	15.7 %
Boil	Columbus/Tomahawk/Zeus	20 g	20 min	15.7 %
Boil	Columbus/Tomahawk/Zeus	10 g	5 min	15.7 %
Dry Hop	Citra	60 g	4 day(s)	12 %

Yeasts

Name	Type	Form	Amount	Laboratory
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Gozdawa Belgian Fruit Spicy Ale Yeast	Ale	Dry	10 g	Gozdawa
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Extras

Type	Name	Amount	Use for	Time
Fining	Mech irlandzki	5 g	Boil	20 min