

STOUT GRYCZANY

- Gravity **15 BLG**
- ABV **6.2 %**
- IBU **38**
- SRM **35.8**
- Style **Foreign Extra Stout**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **26.4 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **20.9 liter(s)**
- Total mash volume **27.8 liter(s)**

Steps

- Temp **66 C**, Time **90 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **20.9 liter(s)** of strike water to **73.6C**
- Add grains
- Keep mash **90 min** at **66C**
- Keep mash **10 min** at **78C**
- Sparge using **12.5 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Castle Pale Ale	2.3 kg (33.1%)	80 %	8
Grain	Gryczany Castle	2 kg (28.8%)	67 %	10
Grain	Monachijski	1.2 kg (17.3%)	80 %	16
Grain	Melanoiden Malt	0.25 kg (3.6%)	80 %	39
Grain	Strzegom Czekoladowy jasny	0.5 kg (7.2%)	68 %	400
Grain	Strzegom Karmel 300	0.4 kg (5.8%)	70 %	299
Grain	Strzegom Czekoladowy ciemny	0.3 kg (4.3%)	68 %	1200

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Target	25 g	60 min	10.5 %
Aroma (end of boil)	East Kent Goldings	37 g	20 min	5.1 %

Yeasts

Name	Type	Form	Amount	Laboratory
US-04 Starter	Ale	Dry	1000 g	---