

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 | --- |