

Stout Świąteczny

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **21**
- SRM **43.9**
- Style **Sweet Stout**

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 **2.5 liter(s) / kg**
- Mash size **13 liter(s)**
- Total mash volume **18.2 liter(s)**

Steps

- Temp **65 C**, Time **40 min**
- Temp **72 C**, Time **20 min**

Mash step by step

- Heat up **13 liter(s)** of strike water to **74C**
- Add grains
- Keep mash **40 min** at **65C**
- Keep mash **20 min** at **72C**
- Sparge using **17.5 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|---------------------------|----------------|-------|------|
| Grain | Strzegom Pale Ale | 3.5 kg (67.3%) | 79 % | 6 |
| Grain | Płatki owsiane | 0.6 kg (11.5%) | 60 % | 3 |
| Grain | Strzegom Karmel 300 | 0.3 kg (5.8%) | 70 % | 299 |
| Grain | Strzegom Czekoladowy 1200 | 0.5 kg (9.6%) | 68 % | 1202 |
| Grain | Jęczmień palony | 0.3 kg (5.8%) | 55 % | 985 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|--------------------|--------|--------|------------|
| Boil | East Kent Goldings | 30 g | 60 min | 5.1 % |
| Boil | East Kent Goldings | 10 g | 30 min | 5.1 % |
| Aroma (end of boil) | East Kent Goldings | 10 g | 0 min | 5.1 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|---------------------------|------|--------|---------|------------------|
| FM13 Irlandzkie Ciemności | Ale | Liquid | 1000 ml | Fermentum Mobile |

Extras

| Type | Name | Amount | Use for | Time |
|-------|--------------------|--------|---------|--------|
| Spice | curacao | 30 g | Boil | 5 min |
| Spice | Skórka pomarańczy | 30 g | Boil | 5 min |
| Spice | Imbir | 2 g | Boil | 60 min |
| Spice | Cynamon | 4 g | Boil | 60 min |
| Spice | Kardamon | 3 g | Boil | 60 min |
| Spice | Goździki | 3 g | Boil | 60 min |
| Spice | Gałka muszkatołowa | 3 g | Boil | 60 min |