

świąteczne

- Gravity **15.4 BLG**
- ABV ---
- IBU **33**
- SRM **30.7**
- Style **Christmas/Winter Specialty Spiced Beer**

Batch size

- Expected quantity of finished beer **19 liter(s)**
- Trub loss **5 %**
- Size with trub loss **19.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **24.1 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.5 liter(s)**
- Total mash volume **22 liter(s)**

Steps

- Temp **66 C**, Time **60 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **16.5 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **10 min** at **78C**
- Sparge using **13.1 liter(s)** of **76C** water or to achieve **24.1 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------------|---------------|-------|-----|
| Grain | Strzegom Monachijski typ II | 2 kg (36.4%) | 79 % | 22 |
| Grain | Strzegom Pilzneński | 2 kg (36.4%) | 80 % | 4 |
| Grain | czereśnia wędzony | 0.5 kg (9.1%) | 80 % | 3 |
| Grain | Pszeniczny | 0.5 kg (9.1%) | 85 % | 4 |
| Grain | Strzegom Karmel 150 | 0.2 kg (3.6%) | 75 % | 150 |
| Grain | Jęczmień palony | 0.2 kg (3.6%) | 55 % | 985 |
| Grain | Strzegom Czekoladowy jasny | 0.1 kg (1.8%) | 68 % | 400 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|--------|--------|--------|------------|
| Boil | Magnat | 20 g | 50 min | 11.2 % |
| Aroma (end of boil) | Magnat | 20 g | 10 min | 11.2 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale S-04 | Ale | Dry | 11 g | Safale |

Extras

| Type | Name | Amount | Use for | Time |
|--------|--------------------|--------|---------|--------|
| Flavor | jałowiec | 10 g | Boil | 10 min |
| Flavor | cynamon | 10 g | Boil | 10 min |
| Flavor | gałka muszkatołowa | 10 g | Boil | 10 min |
| Flavor | kardamonu | 5 g | Boil | 10 min |
| Flavor | goździki | 5 g | Boil | 10 min |
| Other | płatki owsiane | 300 g | Mash | 50 min |