

Gorzki Słodziak

- Gravity **13.5 BLG**
- ABV ---
- IBU **25**
- SRM **36.2**
- Style **Sweet Stout**

Batch size

- Expected quantity of finished beer **13 liter(s)**
- Trub loss **10 %**
- Size with trub loss **14.3 liter(s)**
- Boil time **70 min**
- Evaporation rate **15 %/h**
- Boil size **18.3 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **11 liter(s)**
- Total mash volume **14.6 liter(s)**

Steps

- Temp **68 C**, Time **30 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **11 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **30 min** at **68C**
- Keep mash **20 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **11 liter(s)** of **76C** water or to achieve **18.3 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|--------------------|----------------|-------|------|
| Grain | Pilzneński | 2.5 kg (68.5%) | 81 % | 4 |
| Grain | Strzegom Karmel 30 | 0.5 kg (13.7%) | 75 % | 30 |
| Grain | Pszeniczny | 0.2 kg (5.5%) | 85 % | 4 |
| Grain | Oats, Flaked | 0.2 kg (5.5%) | 80 % | 2 |
| Grain | Czekoladowy | 0.1 kg (2.7%) | 60 % | 1200 |
| Grain | Jęczmień palony | 0.15 kg (4.1%) | 55 % | 985 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|-------------------|--------|--------|------------|
| Boil | Magnum | 6 g | 60 min | 13.5 % |
| Aroma (end of boil) | Lublin (Lubelski) | 10 g | 15 min | 4 % |
| Boil | Marynka | 6 g | 30 min | 10 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale S-04 | Ale | Dry | 6 g | Safale |

Extras

Recipe has been printed via **BREWNESS.com** - a complex online solution for homebrewers to track brewing process easily.

| Type | Name | Amount | Use for | Time |
|-------------|----------------|--------|---------|--------|
| Flavor | laktoza | 250 g | Boil | 15 min |
| Fining | mech irlandzki | 3 g | Boil | 15 min |
| Water Agent | chlorek wapnia | 4 g | Mash | --- |

Notes

- słody ciemne na 72st po negatywnej próbie jodowej
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