

Szwarc

- Gravity **11.7 BLG**
- ABV **4.7 %**
- IBU **25**
- SRM **25.5**
- Style **Schwarzbier**

Batch size

- Expected quantity of finished beer **38 liter(s)**
- Trub loss **5 %**
- Size with trub loss **40.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **48.5 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **4.7 liter(s) / kg**
- Mash size **40 liter(s)**
- Total mash volume **48.5 liter(s)**

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------------|---------------|-------|------|
| Grain | Strzegom Pilzneński | 5 kg (58.8%) | 80 % | 4 |
| Grain | Monachijski | 2 kg (23.5%) | 80 % | 16 |
| Grain | Strzegom Czekoladowy jasny | 0.5 kg (5.9%) | 68 % | 400 |
| Grain | Strzegom Karmel 300 | 0.3 kg (3.5%) | 70 % | 299 |
| Grain | Karmelowy Jasny 30EBC | 0.3 kg (3.5%) | 75 % | 30 |
| Grain | Strzegom Barwiący | 0.4 kg (4.7%) | 68 % | 1300 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|---------------------|--------|--------|------------|
| Boil | Galaxy | 24.7 g | 60 min | 15 % |
| Boil | Hallertau Tradition | 47.5 g | 5 min | 5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|----------------------|-------|--------|--------|------------------|
| FM31 Bawarska Dolina | Lager | Liquid | 95 ml | Fermentum Mobile |