

Marcowe obliczenia

- Gravity **14 BLG**
- ABV **5.8 %**
- IBU **20**
- SRM **8.8**
- Style **German Pilsner (Pils)**

Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **1 %**
- Size with trub loss **12.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **13 %/h**
- Boil size **15 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **11.7 liter(s)**
- Total mash volume **15 liter(s)**

Steps

- Temp **66 C**, Time **70 min**

Mash step by step

- Heat up **11.7 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **70 min** at **66C**
- Sparge using **6.6 liter(s)** of **76C** water or to achieve **15 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------------|-----------------|-------|-----|
| Grain | Strzegom Wiedeński | 1.65 kg (49.5%) | 79 % | 10 |
| Grain | Strzegom Monachijski typ I | 1.55 kg (46.5%) | 79 % | 16 |
| Grain | Caramunich® typ I | 0.13 kg (3.9%) | 73 % | 80 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|-----------|--------|--------|------------|
| Boil | Tradition | 12 g | 60 min | 5.5 % |
| Aroma (end of boil) | Tradition | 42 g | 5 min | 5.5 % |