

pszeniczny pilsik - no sparge

- Gravity **12.4 BLG**
- ABV **5 %**
- IBU **64**
- SRM **3.5**
- Style **German Pilsner (Pils)**

Batch size

- Expected quantity of finished beer **18 liter(s)**
- Trub loss **6 %**
- Size with trub loss **19.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **8 %/h**
- Boil size **22.1 liter(s)**

Mash information

- Mash efficiency **64 %**
- Liquor-to-grist ratio **4.41 liter(s) / kg**
- Mash size **24 liter(s)**
- Total mash volume **29.5 liter(s)**

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------|----------------|-------|-----|
| Grain | Pilzneński | 2.5 kg (45.9%) | 81 % | 4 |
| Grain | Pszenica niesłodowana | 1.7 kg (31.2%) | 75 % | 3 |
| Grain | Słód pszeniczny | 1 kg (18.3%) | 82 % | --- |
| Grain | łuska ryżowa | 0.25 kg (4.6%) | 1 % | 3 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|---|--------|--------|------------|
| Boil | lunga szyszka | 20 g | 60 min | 10 % |
| Boil | Magnat | 20 g | 55 min | 12 % |
| Boil | Marynka | 12 g | 15 min | 8 % |
| Aroma (end of boil) | Marynka | 15 g | 5 min | 8 % |
| Aroma (end of boil) | Oktawia bardzo słaba goryczka mimo 7,8 alfa otwarta | 20 g | 2 min | 4 % |
| Whirlpool | relax | 30 g | 5 min | 1 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|------|-------|------|--------|------------|
| w34 | Lager | Dry | 11 g | Safale |

Extras

| Type | Name | Amount | Use for | Time |
|--------|-------------------|--------|-----------|----------|
| Flavor | esencja chmielowa | 1 g | Secondary | 1 day(s) |