

GIEKON IV

- Gravity **11.5 BLG**
- ABV ---
- IBU **24**
- SRM **35.5**
- Style **Schwarzbier**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **10 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **25.3 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **5 liter(s) / kg**
- Mash size **20.8 liter(s)**
- Total mash volume **24.9 liter(s)**

Steps

- Temp **64 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **76 C**, Time **10 min**

Mash step by step

- Heat up **20.8 liter(s)** of strike water to **68.4C**
- Add grains
- Keep mash **30 min** at **64C**
- Keep mash **30 min** at **72C**
- Keep mash **10 min** at **76C**
- Sparge using **8.7 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|---------------------|----------------|-------|------|
| Grain | Pilzneński | 2.5 kg (60.2%) | 81 % | 4 |
| Grain | Monachijski | 1.1 kg (26.5%) | 80 % | 16 |
| Grain | Czekoladowy | 0.25 kg (6%) | 68 % | 1200 |
| Grain | Strzegom Karmel 150 | 0.15 kg (3.6%) | 75 % | 150 |
| Grain | Strzegom Karmel 600 | 0.15 kg (3.6%) | 68 % | 601 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|-----------|--------|--------|------------|
| Boil | Tradition | 25 g | 50 min | 5.5 % |
| Aroma (end of boil) | Marynka | 20 g | 10 min | 10 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------------|------|------|--------|------------|
| safbrew T-58 | Ale | Dry | 11.5 g | Safale |

Extras

| Type | Name | Amount | Use for | Time |
|--------|---------------------|--------|---------|--------|
| Other | płatki wiśniowe | 10 g | Boil | 20 min |
| Spice | kolendra | 10 g | Boil | 10 min |
| Spice | gałka muszkatałowa | 10 g | Boil | 10 min |
| Spice | kardamon | 10 g | Boil | 10 min |
| Flavor | skórka z pomarańczy | 10 g | Boil | 10 min |