

Iga

- Gravity **15.4 BLG**
- ABV **6.5 %**
- IBU **69**
- SRM **8.8**
- Style **Düsseldorf Altbier**

Batch size

- Expected quantity of finished beer **10 liter(s)**
- Trub loss **5 %**
- Size with trub loss **10.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **12.7 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **9.4 liter(s)**
- Total mash volume **12.1 liter(s)**

Steps

- Temp **63 C**, Time **40 min**
- Temp **72 C**, Time **20 min**

Mash step by step

- Heat up **9.4 liter(s)** of strike water to **69.2C**
- Add grains
- Keep mash **40 min** at **63C**
- Keep mash **20 min** at **72C**
- Sparge using **6 liter(s)** of **76C** water or to achieve **12.7 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------------|-----------------|-------|-----|
| Grain | Viking Pale Ale malt | 0.9 kg (33.5%) | 90 % | 5 |
| Grain | Strzegom Monachijski typ II | 1.1 kg (40.9%) | 90 % | 22 |
| Grain | Jęczmień niesłodowany | 0.16 kg (5.9%) | 75 % | 2 |
| Grain | Strzegom Karmel 30 | 0.42 kg (15.6%) | 75 % | 30 |
| Grain | Carabelge | 0.11 kg (4.1%) | 80 % | 30 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|---------|--------|--------|------------|
| Boil | Marynka | 15 g | 30 min | 6.5 % |
| Boil | Lunga | 36 g | 30 min | 10 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|---------------------|-------|-------|--------|------------------|
| FM51 Grodzie Dębowe | Wheat | Slant | 70 ml | Fermentum Mobile |

Extras

| Type | Name | Amount | Use for | Time |
|------|------|--------|---------|------|
|------|------|--------|---------|------|

| | | | | |
|--------|-------------|-----|------|--------|
| Fining | Whirlfloc T | 2 g | Boil | 10 min |
|--------|-------------|-----|------|--------|