

Alt

- Gravity **11.7 BLG**
- ABV **4.7 %**
- IBU **49**
- SRM **8.9**
- Style **Düsseldorf Altbier**

Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **31.7 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18 liter(s)**
- Total mash volume **24 liter(s)**

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------------|---------------|-------|-----|
| Grain | Pilzneński | 1 kg (16.7%) | 81 % | 4 |
| Grain | Strzegom Monachijski typ I | 1 kg (16.7%) | 79 % | 16 |
| Grain | Strzegom Wiedeński | 2 kg (33.3%) | 79 % | 10 |
| Grain | Karmelowy Czerwony | 0.5 kg (8.3%) | 75 % | 59 |
| Grain | Karmelowy Jasny 30EBC | 1.5 kg (25%) | 75 % | 30 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|-----------|--------|--------|------------|
| Boil | Magnum | 44 g | 60 min | 11 % |
| Boil | Tradition | 25 g | 15 min | 4.5 % |
| Boil | Tradition | 100 g | 0 min | 4.5 % |