

Unkel Dunkel

- Gravity **13.8 BLG**
- ABV **5.7 %**
- IBU **14**
- SRM **14.2**
- Style **Dunkelweizen**

Batch size

- Expected quantity of finished beer **18 liter(s)**
- Trub loss **5 %**
- Size with trub loss **18.9 liter(s)**
- Boil time **80 min**
- Evaporation rate **12 %/h**
- Boil size **24.5 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **4.5 liter(s) / kg**
- Mash size **22.9 liter(s)**
- Total mash volume **27.9 liter(s)**

Steps

- Temp **43 C**, Time **20 min**
- Temp **67 C**, Time **90 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **22.9 liter(s)** of strike water to **45.6C**
- Add grains
- Keep mash **20 min** at **43C**
- Keep mash **90 min** at **67C**
- Keep mash **10 min** at **78C**
- Sparge using **6.7 liter(s)** of **76C** water or to achieve **24.5 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------|----------------|-------|------|
| Grain | Malteurop Pszeniczny | 2.7 kg (53.1%) | 81 % | 6 |
| Grain | Strzegom Pale Ale | 1 kg (19.7%) | 79 % | 6 |
| Grain | Strzegom Wiedeński | 1 kg (19.7%) | 79 % | 10 |
| Grain | Strzegom Karmel 150 | 0.2 kg (3.9%) | 75 % | 150 |
| Grain | Viking melanoidynowy | 0.1 kg (2%) | 75 % | 60 |
| Grain | Strzegom Barwiący | 0.08 kg (1.6%) | 68 % | 1300 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|-----------|--------|--------|------------|
| Boil | Hallertau | 25 g | 60 min | 4.5 % |
| Boil | Hallertau | 10 g | 5 min | 4.5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|------|------|------|--------|------------|
|------|------|------|--------|------------|

| | | | | |
|-------------------------------------|-----|--------|--------|-------------|
| Wyeast - Weihenstephan Weizen | Ale | Liquid | 100 ml | Wyeast Labs |
|-------------------------------------|-----|--------|--------|-------------|