

## projekt - Dunkelweizen #2 - Browar na Wyżynie

- Gravity **13.6 BLG**
- ABV **5.6 %**
- IBU **15**
- SRM **14.9**
- Style **Dunkelweizen**

### Batch size

- Expected quantity of finished beer **18.5 liter(s)**
- Trub loss **6 %**
- Size with trub loss **19.6 liter(s)**
- Boil time **90 min**
- Evaporation rate **11 %/h**
- Boil size **23.1 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **14.4 liter(s)**
- Total mash volume **19.2 liter(s)**

### Steps

- Temp **66 C**, Time **40 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **10 min**

### Mash step by step

- Heat up **14.4 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **40 min** at **66C**
- Keep mash **20 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **13.5 liter(s)** of **76C** water or to achieve **23.1 liter(s)** of wort

### Fermentables

| Type  | Name                                | Amount         | Yield | EBC |
|-------|-------------------------------------|----------------|-------|-----|
| Grain | pszeniczny Viking Malt              | 2.5 kg (52.1%) | 81 %  | 5   |
| Grain | monachijski typ II Viking Malt      | 1.5 kg (31.3%) | 78 %  | 24  |
| Grain | red ale (melanoidynowy) Viking Malt | 0.25 kg (5.2%) | 75 %  | 80  |
| Grain | pszeniczny karmelowy Viking Malt    | 0.25 kg (5.2%) | 70 %  | 100 |
| Grain | karmelowy 100 - Viking Malt         | 0.2 kg (4.2%)  | 75 %  | 100 |
| Grain | karmelowy 600 - Viking Malt         | 0.1 kg (2.1%)  | 65 %  | 600 |

### Hops

| Use for | Name                  | Amount | Time   | Alpha acid |
|---------|-----------------------|--------|--------|------------|
| Boil    | Perle (DE) - granulát | 15 g   | 60 min | 8 %        |

### Yeasts

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

|                                     |     |     |      |     |
|-------------------------------------|-----|-----|------|-----|
| Lallemand Danstar<br>Munich Classic | Ale | Dry | 11 g | --- |
|-------------------------------------|-----|-----|------|-----|

## Extras

| Type        | Name                     | Amount  | Use for | Time   |
|-------------|--------------------------|---------|---------|--------|
| Water Agent | kwas mlekowy 80%         | 5 g     | Mash    | 70 min |
| Water Agent | chlorek sodu             | 4 g     | Mash    | 70 min |
| Water Agent | siarczan wapnia          | 1 g     | Mash    | 70 min |
| Spice       | rumianek saszetka<br>x 2 | 3 g     | Boil    | 5 min  |
| Water Agent | woda<br>demineralizowana | 15000 g | Mash    | 70 min |