

# ciemny dunkel weizen

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- Gravity **12.9 BLG**
- ABV ---
- IBU **15**
- SRM **20.3**
- Style **Dunkelweizen**

## 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 **75 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **9.4 liter(s)**
- Total mash volume **11.7 liter(s)**

## Steps

- Temp **43 C**, Time **20 min**
- Temp **63 C**, Time **50 min**
- Temp **71 C**, Time **20 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **9.4 liter(s)** of strike water to **45.9C**
- Add grains
- Keep mash **20 min** at **43C**
- Keep mash **50 min** at **63C**
- Keep mash **20 min** at **71C**
- Keep mash **10 min** at **78C**
- Sparge using **5.6 liter(s)** of **76C** water or to achieve **12.7 liter(s)** of wort

## Fermentables

| Type  | Name             | Amount         | Yield | EBC |
|-------|------------------|----------------|-------|-----|
| Grain | pszeniczny jasny | 1.2 kg (51.3%) | 83 %  | 4.5 |
| Grain | monachijski      | 0.7 kg (29.9%) | 81 %  | 25  |
| Grain | karmelowy        | 0.2 kg (8.5%)  | 76 %  | 30  |
| Grain | czekoladowy      | 0.16 kg (6.8%) | 68 %  | 400 |
| Grain | zakwaszający     | 0.08 kg (3.4%) | 80 %  | 4.5 |

## Hops

| Use for | Name                | Amount | Time   | Alpha acid |
|---------|---------------------|--------|--------|------------|
| Boil    | Hallertau tradition | 8 g    | 45 min | 5.6 %      |
| Boil    | Hallertau tradition | 8 g    | 15 min | 5.6 %      |