

# Dunkel

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- Gravity **12.6 BLG**
- ABV **5.1 %**
- IBU **13**
- SRM **15.4**
- Style **Dunkelweizen**

## Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.5 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **18.6 liter(s)**
- Total mash volume **23.9 liter(s)**

## Steps

- Temp **44 C**, Time **20 min**
- Temp **64 C**, Time **30 min**
- Temp **72 C**, Time **30 min**

## Mash step by step

- Heat up **18.6 liter(s)** of strike water to **47.4C**
- Add grains
- Keep mash **20 min** at **44C**
- Keep mash **30 min** at **64C**
- Keep mash **30 min** at **72C**
- Sparge using **13.2 liter(s)** of **76C** water or to achieve **26.5 liter(s)** of wort

## Fermentables

| Type  | Name                        | Amount        | Yield | EBC |
|-------|-----------------------------|---------------|-------|-----|
| Grain | Strzegom Monachijski typ I  | 2 kg (37.7%)  | 79 %  | 16  |
| Grain | Strzegom Pszeniczny         | 3 kg (56.6%)  | 81 %  | 4.2 |
| Grain | Strzegom Czekoladowy ciemny | 0.2 kg (3.8%) | 68 %  | 800 |
| Grain | Fawcett - Brown             | 0.1 kg (1.9%) | 72 %  | 180 |

## Hops

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

## Yeasts

| Name                   | Type  | Form   | Amount | Laboratory       |
|------------------------|-------|--------|--------|------------------|
| FM41 Gwoździe i Banany | Wheat | Liquid | 800 ml | Fermentum Mobile |