

# Munich Dunkel Galaxy/Saaz (Pils) #1 22-10-2022 r.

- Gravity **12.6 BLG**
- ABV **5.1 %**
- IBU **22**
- SRM **7.6**
- Style **Munich Dunkel**

## Batch size

- Expected quantity of finished beer **27 liter(s)**
- Trub loss **5 %**
- Size with trub loss **31.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **37.2 liter(s)**

## Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **28 liter(s)**
- Total mash volume **36 liter(s)**

## Steps

- Temp **64 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **28 liter(s)** of strike water to **70.3C**
- Add grains
- Keep mash **30 min** at **64C**
- Keep mash **30 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **17.2 liter(s)** of **76C** water or to achieve **37.2 liter(s)** of wort

## Fermentables

| Type  | Name               | Amount       | Yield | EBC |
|-------|--------------------|--------------|-------|-----|
| Grain | Monachijski        | 5 kg (62.5%) | 80 %  | 16  |
| Grain | Strzegom Wiedeński | 2 kg (25%)   | 79 %  | 10  |
| Grain | Pilzneński         | 1 kg (12.5%) | 81 %  | 4   |

## Hops

| Use for             | Name                  | Amount | Time   | Alpha acid |
|---------------------|-----------------------|--------|--------|------------|
| Boil                | Magnum                | 15 g   | 45 min | 15.3 %     |
| Boil                | Saaz (Czech Republic) | 30 g   | 20 min | 4.5 %      |
| Aroma (end of boil) | Saaz (Czech Republic) | 20 g   | 2 min  | 4.5 %      |

## Yeasts

| Name             | Type  | Form  | Amount | Laboratory |
|------------------|-------|-------|--------|------------|
| Saflager W 34/70 | Lager | Slant | 500 ml | Fermentis  |

## Extras

| Type | Name | Amount | Use for | Time |
|------|------|--------|---------|------|
|------|------|--------|---------|------|

|        |            |     |      |        |
|--------|------------|-----|------|--------|
| Fining | Irish Moss | 5 g | Boil | 10 min |
|--------|------------|-----|------|--------|