

Kara Mustafa

- Gravity **14 BLG**
- ABV **5.8 %**
- IBU **22**
- SRM **7.9**
- Style **Vienna Lager**

Batch size

- Expected quantity of finished beer **28.6 liter(s)**
- Trub loss **5 %**
- Size with trub loss **30 liter(s)**
- Boil time **65 min**
- Evaporation rate **10 %/h**
- Boil size **36.5 liter(s)**

Mash information

- Mash efficiency **91 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **22.9 liter(s)**
- Total mash volume **29.5 liter(s)**

Steps

- Temp **54 C**, Time **10 min**
- Temp **63 C**, Time **40 min**
- Temp **72 C**, Time **10 min**
- Temp **76 C**, Time **5 min**

Mash step by step

- Heat up **22.9 liter(s)** of strike water to **58.9C**
- Add grains
- Keep mash **10 min** at **54C**
- Keep mash **40 min** at **63C**
- Keep mash **10 min** at **72C**
- Keep mash **5 min** at **76C**
- Sparge using **20.2 liter(s)** of **76C** water or to achieve **36.5 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-------------------------------|----------------|-------|-----|
| Grain | Weyermann - Vienna Malt | 4 kg (61.1%) | 81 % | 8 |
| Grain | Weyermann - Light Munich Malt | 2 kg (30.5%) | 82 % | 14 |
| Grain | Caramunich® typ I | 0.25 kg (3.8%) | 73 % | 80 |
| Grain | Weyermann - Cara Crystal | 0.2 kg (3.1%) | 78 % | 150 |
| Grain | wayermann - zakwaszajacy | 0.1 kg (1.5%) | --- % | --- |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|-----------------------|--------|--------|------------|
| Boil | Hallertau Blanc | 30 g | 60 min | 8.7 % |
| Boil | Saaz (Czech Republic) | 30 g | 10 min | 3.7 % |

Yeasts

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

| | | | | |
|------------------|-------|-----|--------|-----------|
| Saflager W 34/70 | Lager | Dry | 11.5 g | Fermentis |
|------------------|-------|-----|--------|-----------|