How do the bubbles get into wine?

EU requirements	The European Union defines which wines are declared as semi-sparkling wine or sparkling wine, with regulations for pressure and residual sugar. In addition, Council Regulation (EEC) No 2333/92 of 13 July 1992 regulates not only shipping dosage but also areas of vinification, labelling, permissible additional information and similar matters. The requirements apply throughout the EU. Council regulation (EEC) No. 2333/92 rates from 13 July 1992

Residual sugar	
brut nature (Zero Dosage*, brut zero)	<3 g/l
brut (herb)	<12 g/l
extra dry (extra trocken)	12-17 g/l
dry (sec, trocken)	17-32 g/l
medium dry (halbtrocken, demi sec)	32-50 g/l
sweet (doux, mild)	>50 g/l
*Zero dosage means that no sugar is added as a shipping dosage after disgorging. The residual sugar comes from the first or second fermentation.	

Pressure	
Still wine	≥1 bar
Semi-sparkling wine	1-2,5 bar
Sparkling wine	≥3 bar
Quality sparkling wine	≥3,5 bar
Wine with a pressure between 2.5 and 3 bar is not regulated by EU law. From 3 bar upwards, sparkling wine corks and wire caps are mandatory.	

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	Method	Product name (examples)	Mousse	Lees maturation (Minimum)	Alcohol	Residual sugar	Pressure (at 20°)	Region	Grape varieties	Other requirements	Notes
Méthode Ancestral	Grape must is poured into bottles or tanks while it is still fermenting, where it continues to ferment until complete. No second fermentation.	Pétillant naturel (Pet Nat) as semi-sparkling wine (Perlwein) or sparkling wine (Schaumwein)	Mild carbonation, fine bubbles, rather long-lasting	No specifications	No specifications	In accordance with EU regulations	No specifications	No specifications	No specifications	Crown caps permitted, no shipping dosage for semi-sparkling wine	Also known as the *rurale* method, the least invasive and oldest form of sparkling wine production, disgorging optional.
Addition of carbon dioxide	Carbon dioxide is added to the finished wine; there is no second fermentation.	Semi-sparkling wine with added carbon dioxide Sparkling wine with added carbon dioxide Frizzante	exogenous, i.e. not produced during fermentation, bigger bubbles, volatile	No specifications	Germany & Austria: >9% vol.	In accordance with EU regulations	1-2.5 bar	No specifications	No specifications	Must not exceed 2.5 bar	Also known as carbonisation or impregnation, cheap and widely used, usually outsourced to contract sparkling wine producers or beverage bottlers, inexpensive in large quantities.
Méthode Charmat	Sugar and yeast are added to still base wine in a closed tank. The second fermentation takes place in the tank. Once fermentation is complete (and after any necessary storage period), the finished semi-sparkling or sparkling wine is bottled.	Semi-sparkling wine	Bigger bubbles and not long-lasting	No specifications	No specifications	In accordance with EU regulations	1-2.5 bar	No specifications	No specifications	No shipping dosage	Expensive technology required, usually outsourced to contract wineries or beverage bottlers, inexpensive in large quantities, dosage in the tank, separation from the yeast by filtration during bottling under pressure (to retain carbon dioxide), no classic disgorging.
		Sparkling wine					≥3 bar				
		Quality sparkling wine (Qualitätsschaumwein)					≥3.5 bar				
		Sekt Austria (PDO)		6 months			≥3.5 bar	Austria		Grapes from one federal state; no further geographical indications permitted	
Transfer Method	Like Méthode Traditionnelle, except that during disgorging, the sparkling wine is either first filled into a pressure tank and then bottled, or transferred directly from one bottle to another.	Semi-sparkling wine	Few differences to Méthode Traditionnelle	No specifications	Germany & Austria: Base wine >8.5 % vol.	In accordance with EU regulations	1-2.5 bar	No specifications	From grape varieties approved for quality wine	'Bottle fermentation' (not 'traditional bottle fermentation')	Common for small and large bottles, and the only de facto option for Jeroboams. Transferring to tanks serves to homogenise the wine, evening out differences between individual bottles.
		Sparkling wine		No specifications			≥3 bar				
		Quality sparkling wine		No specifications			≥3.5 bar				
		Sekt Austria (PDO)		9 months			≥3.5 bar	Austria			
Méthode Traditionnelle	Traditional bottle fermentation (2nd fermentation): Still base wine is fermented in the bottle with or without sugar and yeast (dosage). The finished sparkling wine is separated from the yeast sediment (disgorging), often followed by bottle ageing.	Quality sparkling wine	Fine bubbles, long-lasting	9 months	Base wine >8,5 % vol.	In accordance with EU regulations	≥3,5 bar	Austria	All quality wine grape varieties		Traditional bottle fermentation, costly and labour-intensive, storable, remaining stocks may continue to be marketed and used in accordance with the old legislation (Federal Law Gazette II No. 365/2016); supervisory body: Federal Office for Viticulture, Federal Wine Inspection Service operates under the Federal Office for Viticulture.
		Sekt Austria (PDO)		9 months						In one federal state (mandatory)	
		Sekt Austria Reserve (PDO)		18 months		≤12 g/l			All quality wine grape varieties, red wine varieties only as rosé	In a federal state (mandatory information), municipality information permitted, hand-picked and whole grape pressing	
		Sekt Austria Grosse Reserve (PDO)		36 months						In a federal state and municipality (part) (mandatory information), large vineyard location and vineyard designation permitted, hand-picked and whole bunch pressing More information	
		Deutscher Sekt		9 months		In accordance with EU regulations		Germany	All quality wine grape varieties	Regulated autonomously by state governments More information	
		Deutscher Sekt b.A.		9 months							
		Franciacorta		24 months (36 months for millesimato, 60 months for riserva)	≥11,5% vol. (Base wine: ≥9,5% vol.; Erbamat: ≥9% vol.)		≥3,5 bar (millesimato ≤5 bar)	Brescia region	Chardonnay, Pinot nero, Pinot bianco ≤50%, Erbamat ≤10%	Hand-picked and whole bunch pressing, harvest containers ≤200kg, ≤ 550 metres above sea level, no (damp) locations in the valley, ≤ 12 t/ha, millesimato from one vintage and ≤ 5bar, Satèn ≤ 20g/l Tirage	Controlling body: Valoritalia S.r.l, Rome
		Franciacorta Rosé							Chardonnay ≤65%, Pinot nero ≥35%, Pinot bianco ≤50, Erbamat ≤10%	More information	
		Franciacorta Satèn							Chardonnay ≥50% Pinot bianco ≤50%		
		Champagne		15 months Non Vintage	≥11% vol.		≥3,5 bar	Champagne	Pinot Noir, Chardonnay, Pinot Meunier; also: Pinot Gris, Pinot Blanc, Petit Meslier, Arbane	Hand-picked, whole bunch pressing, rosé permitted through blending of red and white grapes – a special case in the EU! More information	Classification of vineyards as for still wines and in accordance with the AOP system; supervisory body: Comité Interprofessionnel du vin de Champagne (CIVC)
				36 months millésime							
		Cremánt		9 months	No specifications	≤50 g/l		Alsace, Bourgogne, Loire, Bordeaux, Die, Jura, Limoux, Savoie, Luxemburg	In accordance with AOP specifications	Hand-picked, varies depending on AOP More information	
		Cava		9 months	≥10% vol.	In accordance with EU regulations		D.O. Cava (Catalonia, Rioja, Aragón, Extremadura, Navarra, Valencia)	Macabeo, Xarel-lo, Parellada, Chardonnay, Subirat Parent (Malvasía Riojana), Garnacha, Monastrell, Trepat, Pinot Noir	Whole bunch pressing, yield rate during pressing ≤65% More information	Most of the production takes place in Catalonia. Must be produced at the winery.
		Cava Reserva		18 months							
		Cava Gran Reserva		30 months							
		Cava de Paraje Calificado (CPC)		36 months						Whole bunch pressing, yield during pressing ≤65%, vines ≥10 years old	
		UK sparkling wine		9 months	≥10% vol.	Comparable to EU regulations		United Kingdom	Chardonnay, Pinot Noir, Pinot Meunier; other varieties according to PDO specifications	More information	

NOTE: Protected designations of origin may require stricter rules. In this case, the above values are to be understood as minimum standards. This list is not exhaustive.