# Traditional Sand and Cement vs Fast-Drying Screed vs Flowing Cement Screed vs Calcium Sulphate / Anhydrite Screed vs Polymer-Modified Screed

Screed is one of those products that people often talk about as if it is one thing, when in reality it is a whole category of different systems with different strengths, drying profiles and best-use cases. The right screed depends on the substrate, the required thickness, the programme, the floor finish, whether underfloor heating is involved, and how much risk you want to carry around drying times and site conditions. BS 8204 remains one of the core standards for screeds and levelling layers in the UK, and EN 13813 continues to underpin how screed materials are classified by performance.

For most domestic and light commercial projects, the comparison usually comes down to **traditional sand and cement**, **fast-drying screeds**, **flowing cement screeds**, **calcium sulphate or anhydrite flowing screeds**, and **polymer-modified screeds**. Each can be the right answer. Each can also be the wrong answer if the build-up, programme or finish does not suit it. That is where people either save time and money — or manufacture their own pain.

## What the products are generally used for?

**Traditional sand and cement screed** is the long-standing standard for bonded, unbonded and floating screeds in domestic and commercial work. It is commonly used where the build-up is conventional, the programme is not brutally tight, and the installer wants a familiar system with broad compatibility. Mapei's UK outline specification for Topcem Pronto also uses these same bonded, unbonded and floating categories, which reflects standard UK screed application language.

**Fast-drying screeds** are generally used where the programme is tight and floor finishes need to go down much sooner than they would on a traditional screed. Mapei states that Topcem Pronto screeds can be ready for foot traffic in 12 hours, ready for ceramic tiles after 24 hours, natural stone after 2 days, and fully dry for wood and resilient floor coverings in 4 days. That makes this type of product attractive in retail, residential renovation, and commercial fast-track work.

**Flowing cement screeds** are typically used where speed of placement, good surface regularity and compatibility with underfloor heating are priorities, but the project team wants to avoid some of the finishing limitations associated with calcium sulphate screeds. Cemfloor positions its product as a cement-based flowing screed suited to faster floor-finishing programmes and thinner sections over UFH.

**Calcium sulphate / anhydrite flowing screeds** are commonly used in larger floor areas, especially where underfloor heating is involved and rapid placement matters. Gypsol markets its flowing screeds as pumpable, self-smoothing products that can be placed in larger bay sizes than many traditional cement-based materials and that are particularly well suited to heated floors.

**Polymer-modified screeds** are generally used where thinner sections, improved adhesion or higher performance are needed compared with a standard traditional screed. They are especially relevant in bonded applications, renovation work, and areas where reducing thickness without losing performance matters. Mapei's Topcem Pronto is one example of a performance-led proprietary screed system rather than a simple site-mixed traditional screed.

## Why each one is used?

**Traditional sand and cement screed** is used because it is well understood, widely available and flexible across many ordinary build-ups. It remains popular where site teams want a known quantity and are not under extreme pressure to install the final floor finish at speed. Gypsol's 2025 brochure still uses traditional sand cement screed as the benchmark comparison, which says a lot about how embedded it remains in the market.

**Fast-drying screeds** are used because they compress the programme dramatically. If the client wants floor finishes installed quickly, a fast-drying system can save weeks compared with traditional screed. Topcem Pronto's declared readiness for ceramic tiles after 24 hours and dry condition for wood and resilient finishes after 4 days is exactly the kind of claim that makes contractors pay attention.

**Flowing cement screeds** are used because they combine the placement benefits of a liquid screed with the compatibility advantages of a cement-based binder. Cemfloor states that floor coverings can be applied at a final moisture content of 2.5% CM, compared with lower target moisture figures for calcium sulphate screeds, which is one reason these products are often seen as a good programme-friendly middle ground.

**Calcium sulphate / anhydrite screeds** are used because they are quick to lay, highly workable and very good with UFH. Gypsol says its products offer dimensional stability, reduced cracking risk without reinforcement, and suitability for larger bay sizes. Those are real on-site advantages, especially across bigger floor plates.

**Polymer-modified screeds** are used because they can improve adhesion, allow reduced thickness and support higher-performance applications. They are often chosen in refurbishment or constrained build-ups where a normal sand and cement screed would simply be too thick or too slow.

## Ease of use

**Traditional sand and cement screed** is familiar, but it is more labour-intensive and slower to place than liquid screeds. The 2026 Screedflo data sheet says modern flowing screeds are quicker to lay and less labour intensive than traditional sand and cement products, which is exactly why site teams increasingly move toward pumped systems where the job suits them.

**Fast-drying screeds** are often straightforward to specify when speed matters, but they need disciplined installation and adherence to the manufacturer's system guidance. You are buying

performance, not improvisation. The upside is huge if the programme matters; the downside is they are not usually the cheapest bag in the room.

**Flowing cement screeds** are easier and faster to place over larger areas than hand-laid traditional screed and often produce very good surface regularity. Cemfloor also notes that its screeds can be force dried after 7 days and work well with UFH. That can simplify the overall project sequence, especially on larger residential or commercial schemes.

**Calcium sulphate / anhydrite screeds** are very installer-friendly in terms of pumpability and self-smoothing performance, but they come with extra housekeeping. Laitance removal and moisture management matter, and they are not generally promoted as suitable for wet areas in the same way many cement-based flowing screeds are. Longfloor's comparison chart explicitly notes wet-area suitability for its cement-based products and not for anhydrite in the same way.

**Polymer-modified screeds** are usually less forgiving of casual site mixing habits because they are designed as proprietary systems with specific performance targets. In return, they can solve tricky thickness, adhesion and programme problems very neatly.

## Technical characteristics that matter

One of the biggest technical differences is **drying time**. Gypsol's 2025 brochure gives a standard drying time of **6 weeks** for traditional sand cement screed, compared with **28 days** for standard Gypsol and **14 days** for Gypsol Rapide under stated conditions. Mapei states **4 days** to dry for certain Topcem Pronto screeds before resilient and wood floor finishes. Cemfloor states **7 to 10 days** for ceramic or natural stone tiling with a green screed adhesive, **21 days** with conventional adhesive, and **28 days** for solid wood or laminate under natural drying conditions.

Another major technical point is **UFH compatibility**. Calcium sulphate and flowing cement screeds are both commonly promoted for underfloor heating because they can be laid in thinner, more fluid sections with good pipe encapsulation. Longfloor's comparison chart gives a thermal conductivity value of **2.3 W/mK** for UFH calculations on its cement-based flowing screed, while Gypsol's literature repeatedly positions its products around heated floor applications.

**Moisture and floor finish compatibility** also matter. Cemfloor's literature explicitly contrasts its cement-based moisture target of **2.5% CM** with calcium sulphate screeds that need to dry to **0.5% CM** before some floor finishes can be applied. That does not make calcium sulphate bad. It just means programme planning and moisture testing need to be taken seriously.

**Classification and strength** matter too. Topcem Pronto is classified as **CT-C30-F6-A1fl** under EN 13813 when prepared in accordance with the technical data sheet. Gypsol XS is listed as **C30-F6** with **A1fl non-combustible** reaction to fire and drying at **28 days at 50 mm depth**, or **13 days with active force drying**, under stated conditions.

## Approximate costs of the product

At a broad planning level, **traditional sand and cement screed** is often one of the lower upfront-cost options in material terms, but it can become less attractive when slower placement, more labour

and longer drying times are factored in. Gypsol's 2025 comparison still uses traditional screed as the slower benchmark, which is often where its commercial drawback shows up.

**Flowing calcium sulphate** and **flowing cement screeds** often sit in the mid-range on supply-and-lay pricing, but they can win commercially because they are quicker to install and may help the programme. Longfloor's comparison chart, although older, gave indicative **50 mm** rates of about **£16/m²** for calcium sulphate, **£20/m²** for one cement-based flowing screed, and **£21/m²** for another proprietary flowing cement product. Those exact figures will have moved, but the relative pattern is still useful: liquid systems are not automatically the cheapest, but they often stack up well overall.

**Fast-drying** and **polymer-modified screeds** are usually more expensive in product terms, but they earn their keep where programme time is expensive or where a conventional screed would cause knock-on delays. On the right job, paying more for the screed can save more elsewhere. That is not marketing magic — it is project sequencing.

## How they tend to be sold and availability

**Traditional sand and cement screed** is commonly sold either as site-mixed material or through ready-mix and specialist screed contractors. Availability is broad because it is the old faithful of the category.

**Fast-drying screeds** and **polymer-modified screeds** are usually sold as proprietary systems through specialist merchants, tile and flooring distributors, or direct contractor channels. You are normally buying a branded performance system rather than a generic mix.

**Flowing cement screeds** and **calcium sulphate screeds** are typically sold through approved pumping contractors and regional supply networks. The fact they are liquid-applied means the contractor route is a major part of the purchasing model, not an afterthought. Gypsol and Cemfloor both operate in that system-led market.

## Other points a customer should know before choosing

If the project is **programme-led**, standard traditional screed often loses ground quickly because its drying profile is simply slower. That does not make it obsolete. It just means it suits calmer jobs better than panic-driven ones.

If the project uses **underfloor heating**, flowing screeds often become more attractive because of their pipe encapsulation, response and placement speed. Both Gypsol and Cemfloor position themselves strongly in UFH applications.

If the area is a **wet room or moisture-sensitive environment**, the choice of screed type and the floor-finish build-up needs more care. Cement-based systems are often preferred in these cases, while calcium sulphate systems need closer attention to suitability, laitance removal and drying.

If the project has a **thin bonded build-up** or tricky refurbishment detail, polymer-modified and proprietary rapid screeds often move up the shortlist quickly because standard sand and cement can become too thick or too slow.

## Conclusion

If you want the blunt version: **traditional sand and cement screed** is the familiar all-rounder; **fast-drying screed** is the programme-saving specialist; **flowing cement screed** is the liquid all-rounder with strong finish compatibility; **calcium sulphate / anhydrite screed** is the fast-placement, UFH-friendly flowing option; and **polymer-modified screed** is the thinner, higher-performance choice for more demanding details.

There is no universal winner. If the job is straightforward and time is not critical, traditional screed can still make sense. If the client wants the floor finished fast, rapid screeds come into their own. If the project is large, pumped and built around UFH, flowing screeds usually deserve a serious look. If the build-up is tight or the detail is awkward, polymer-modified systems can solve problems neatly.

The smart choice is not just picking the screed that sounds fastest or cheapest. It is choosing the one that fits the build-up, the floor finish, the programme and the actual site conditions without creating a mess further down the line.