International Hazard Datasheets on Occupation

Plasterer

Who is a plasterer?

A plasterer is a building worker that is engaged in covering surfaces by layers of plaster; these are later smoothened, in order to create finished surfaces, which may also to be fire-proof, noise absorbing, isolating and decorative.

What is dangerous about this job?

- The work of the plasterer includes work at heights; plasterers could slip, fall, suffer severe injury and even be killed [Note 1]
- They may get injured by falling objects and other work tools and/or as a result of their work with manual and portable work tools
- Additional risks which the plasterer is facing are: electrocution, exposure to severe climatic phenomena (including lightning), various injuries as well as ergonomic ones that are caused by the lifting and transfer of heavy objects.

Hazards related to this job

Specific preventive measures can be seen by clicking on the respective in the third column of the table.

Accident hazards	• Slips, trips and falls of people on the level	1
	• Falls from high places (scaffolding, stair rooms, ladders, etc.)	2 3
	• Being hit by falling objects (building materials, work tools, etc.)	1
	• Injuries, as a result of working with tools (including portable ones), lifting and moving them	4
	• Stepping on, colliding with or being hit by a static object, or by a motor vehicle at the work site)	5
	• Being caught and/or squeezed between objects	5
	• Exposure to or contact with electric current	6
	• Injury resulting from the use of plaster spraying machines	
	• Over-exertion or strained movements	4

	• Contact/exposure to extreme temperatures (including risk of being hit by lightning when working outdoors on metal scaffolding)	7
Physical hazards	• Direct exposure to the sun and to its ultraviolet radiation, while doing routine work outdoors	7
	• Potential exposure to radon gas, which may be emitted under certain conditions from concrete	
	• Exposure to excessive noise from mechanized and manual tools (drills, hammers, saws, etc.)	1
	• Exposure to harsh weather (extreme temperatures, very high or very low, rains, snow, winds, etc.) that causes acute or chronic diseases.	7
Chemical hazards	• Skin injuries, dermatitis and eczemas, as a result of direct contact with cement which may contain chromates (development of chromate allergy)	8
	• Various lung diseases, mostly chronic, resulting from exposure to dust, while smoothening and finishing the plastering of walls and surfaces	
	• Potential exposure to asbestos in the event of dismantling a structure that contains asbestos or a plaster of asbestos	
	• Exposure to formaldehyde when working in buildings with walls containing isolating materials that release this gas	
	• Development of silicosis among plasterers who are also engaged in sand cleaning, or use sand having a high concentration of free silica	
	• At a construction site, plasterers may be exposed to hazards created by other workers – for example: exposure to paint thinners and solvents, while at the same time painting work is being carried out at the site; within an industrial plant, plasterers working there may be exposed to chemicals specific to the workplace	
Biological hazards	• Various diseases, such as dermatitis caused by contact with birds secretions, or through contact with parasites residing in birds nests, or by bites and stings of mosquitoes and other insects, rodents and similar pests	1
	• Considerable rise of pulse rate while doing strenuous work under direct sunlight.	
Ergonomic, psychosocial and organizational factors	• Musculoskeletal injuries, including back injuries that are related to work postures, the moving or carrying of heavy and/or voluminous objects, and repetitive strains	4 5
	• Wrist and arm diseases, resulting from the specific mode of work of the plasterer, and from excessive efforts of certain muscles	9
	• Diseases of the sensory motor systems, characteristic building workers	9

	• Knee injuries, as a result of prolonged work in a squatting posture.	8

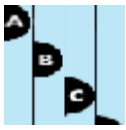
Preventive measures

1. Whenever you are at the construction site, wear personal protection equipment, esp., crash helmet and safety shoes with non-slip soles and a rigid inlay to prevent penetration of sharp objects; if necessary wear also gloves, safety goggles, upholstered knee-protectors, clothes adapted to the weather conditions, etc.; verify that no discarded objects and/or building rubbish are spread at the work site; verify that there is sufficient illumination at the work site
2. Protective fencing against falling from elevated work surfaces should be installed
3. Use appropriate equipment for protection against falls (safety belts, harnesses, nets, canvass sheets, protective railings consisting of lower, middle and upper planks, etc.) in all work areas (scaffolds, etc.) from where falls are possible
4. Learn and use safe techniques for lifting and moving heavy and bulky loads; use mechanical lifting aids whenever possible
5. The workers should receive sufficient training in the field of general work safety, as well as in the specific hazards of the plasterer's work. This should include guidance in regard to the correct safe and ergonomic work techniques, appropriate behaviour at the workplace, and the ethics of shift work
6. Inspect the safety of the electric equipment before use; suspected or defective equipment should be brought to a certified electrician, for inspection and repair; check and verify that there are no loose "live" electric wires dangling at the work area; don't stand on metal scaffolding in stormy weather
7. Use proper clothing and head cover for protection against unfavorable weather, including strong solar radiation
8. As far as possible, avoid direct contact between unprotected hands and knees and wet concrete
9. It is desirable to consult with an occupational physician about proper ways of doing the work and the necessary auxiliary means required for that.

Specialized information

Synonyms plaster caster; plaster coater; Plaster worker.

Definitions and/or description



Applies coats of plaster to interior walls, ceilings, and partitions of buildings, to produce finished surface, according to blueprints, architect's drawings, or oral instructions, using hand-tools and portable power tools: Directs workers to mix plaster to desired consistency and to erect scaffolds. Spreads plaster over lath or masonry base, using trowel, and smooths plaster with darby and float to attain uniform thickness. Applies scratch, brown, or finish coats of plaster to wood, metal, or board lath successively. Roughens undercoat with scratcher (wire or metal scraper) to provide bond for succeeding coats of plaster. Creates decorative textures in finish coat by marking surface of coat with brush and trowel or by spattering surface with pebbles [STUCCO MASON (construction) 842.381-014]. May install lathing [LATHER (construction) 842.361-010]. May mix mortar. May install guide wires on exterior surface of buildings to indicate thickness of plaster to be applied. May install precast ornamental plaster pieces by applying mortar to back of pieces and pressing pieces into place on wall or ceiling and be designated Ornamental-Plaster Sticker (construction). May specialize in applying finish or rough coats of plaster and be designated Plasterer, Finish (construction); Plasterer, Rough (construction). May apply plaster with spray gun

and be designated Plasterer, Spray Gun (construction). May perform maintenance work only and be designated Plasterer, Maintenance (construction).

Related and specific occupations

Building-worker (general); gypsum partition installer; mason; paver; stone layer; whitewasher.

Tasks

Binding; brushing; casting (decorative casts); climbing (on ladders, scaffolding; working-surfaces, etc.); coating; coordinating; covering; drawing (decorative motives in the plaster); filing; finishing; gluing; installing; instructing; isolating; joining; lifting; marking; mixing (plaster); plastering; preparing & laying (layers of plaster of different types); polishing; raising and lowering; roughening; scattering; scratching; scrubbing; slitting; smoothing; spraying; sprinkling; straightening; tying.

Primary equipment used

Work-tools of a plasterer, inc. brushes, scourers, scouring brushes, smoothening plates, spatulas, trowels, etc.; hoisting equipment; ladders; lifting equipment; manual tools of a mason; plaster-sprayers; ropes; scaffolding; etc.; various building materials – acrylic resins, cement, gypsum, etc.

Workplaces where the occupation is common

Building and construction companies; building contractors; building renovation companies; institutional departments for maintenance and renovation of buildings.

Notes

1. It has been reported that falls from scaffolding constitute most of the lethal accidents in the building industry, and a considerable part of non-lethal accidents as well; a considerable part of the accidents happened among unskilled and/or temporary workers and or immigrants. The chance of falling is much higher when ice or snow accumulate on the plates or cover building rubbish; also, when other types of harsh weather conditions prevail

2. It is desirable not to stand on scaffolding and work during stormy weather conditions – e.g. when there are showers, strong winds, thunder and lightning.

3. Data published by the British HSE (Health and Safety Executive) reveal that a considerable part of work accidents involving plasterers happen among contractors; usually, most accidents happen within the first ten weeks of employement

4. Data from the USSR (published by the HSE) indicate that women working in plastering may have menstrual irregulatirities related to their work

5. Epidemiological data suggest that there may be considerable increase of lung cancer among plastereres.

References

1. Encyclopaedia of Occupational Health and Safety, 4th Ed., ILO, Geneva, 1998

2. Encyclopaedia of Occupational Health and Safety, 3rd Ed., ILO, Geneva, 1983

3. Occupational Diseases - a Guide to their Prevention. DHEW- NIOSH Pub. 77-181, 1977

4. U.S. Dept. of Labor: Dictionary of Occupational Titles (DOT), 4th. Ed., 1991

5. U.S. Dept. of Labor: Occupational Outlook Handbook, 1996-7 Ed., NTC Pub. Group, pp 3909-12, 1996.

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